



NATIONAL TRANSPORTATION SAFETY BOARD
Investigative Hearing

Managing Safety on Passenger Railroads: Amtrak Overspeed Derailment – DuPont, Washington; and CSX and Amtrak Train Collision – Cayce, South Carolina.

GROUP	F
EXHIBIT	
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Agency / Organization

NTSB

Title

Interview Transcript- Sound Transit Officers

UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

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Investigation of:

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AMTRAK DERAILMENT IN DUPONT,

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WASHINGTON ON DECEMBER 18, 2017

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Interview of: SALAH AL-TAMIMI and
 ROBERT TAAFFE
 Sound Transit

National Transportation Safety Board
 Western Regional Headquarters
 Federal Way, Washington

Thursday,
 March 15, 2018

APPEARANCES:

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National Transportation Safety Board

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(On behalf of Mr. Taaffe and Mr. Al-Tamimi)

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I N T E R V I E W

MR. FRIGO: Good morning, my name is Ryan Frigo. I'm an investigator with the National Transportation Safety Board. Today is March 15th, 2018, and we are here in Federal Way, Washington at the NTSB Western Regional Headquarters to discuss system safety and safety management at Sound Transit. We are here with Mr. Salah Al-Tamimi and Mr. Robert Taaffe. This is regarding NTSB accident number RRD18MR001, which is an Amtrak derailment in Dupont, Washington.

At this time we will go around the room and introduce ourselves for the benefit of the transcriptionist. I'll begin and then I'll pass over to Mr. Pate from WSDOT. If you could just say your name and the agency that you represent.

MR. FRIGO: Ryan Frigo, F-r-i-g-o, National Transportation Safety Board.

MR. PATE: Ron Pate, P-a-t-e, Washington State Department of Transportation.

MR. CHAPPELL: Michael Chappell, C-h-a-p-p-e-l-l, SMART Transportation, Safety Team.

MS. IMPASTATO: Theresa Impastato, I-m-p-a-s-t-a-t-o, Amtrak.

MR. AL-TAMIMI: Salah Al-Tamimi, S-a-l-a-h. A-l, hyphen, T-a-m-i-m-i.

MR. TAAFFE: Robert Taaffe, Puget Sound Regional Transit Authority, Sound Transit. Last name is T-a-a-f-f-e.

MR. FRIGO: And gentlemen, do you wish to have a

1 representative here with you today?

2 MR. AL-TAMIMI: Yes.

3 MR. TAAFFE: Yes.

4 MR. WAGNER: Jordan Wagner, Sound Transit.

5 MR. FRIGO: Okay. And do I have your permission to record
6 this conversation with you here today?

7 MR. AL-TAMIMI: Salah, yes.

8 MR. TAAFFE: Robert Taaffe, yes.

9 MR. FRIGO: Okay. Great. Gentlemen, thank you for being
10 with the group here today.

11 INTERVIEW OF ROBERT TAAFFE AND SALAH AL-TAMIMI

12 MR. FRIGO: And as a typical intro to these discussions, we
13 just like to get a little bit of background information, work
14 experience, and, you know, your history with the agency in
15 transportation and safety. I know, Robert, we've spoken to you
16 before --

17 MR. TAAFFE: Uh-huh.

18 MR. FRIGO: -- but we are going to ask you to do it again.
19 So maybe we'll start out with Robert and then we'll go to Salah.

20 MR. TAAFFE: Okay.

21 MR. FRIGO: Okay, great.

22 MR. TAAFFE: Robert Taaffe. I've been in the safety industry
23 heavy civil construction for 25 years in the transit industry. I
24 have been in the transit safety industry for 13 of those years.

25 MR. AL-TAMIMI: Salah Al-Tamimi. I have been in the

1 transportation business for over 30 years. I'm a professional
2 engineer. I have a master's degree in structural engineering.
3 I've been with Sound Transit for 8 years, and that's my
4 involvement with transit and rail.

5 When I was before that with WSDOT, I had many projects that
6 had rail interaction from design and construction side. I've done
7 -- I was the program design manager from Northgate Link Extension,
8 which is light rail design, for 4 years. And also, after that, I
9 became director for safety and quality assurance with Sound
10 Transit, was in charge of the program. Throughout my career
11 safety is a key element of my job, whether it was with cars or
12 with Sound Transit with light rail or trains.

13 MR. FRIGO: Great. Salah, what is your current position at
14 Sound Transit?

15 MR. AL-TAMIMI: I am the chief safety and quality assurance
16 officer.

17 MR. FRIGO: Okay. And Robert, what about you?

18 MR. TAAFFE: Robert Taaffe. I'm the director of construction
19 and system safety.

20 MR. FRIGO: Okay. Excellent. So I think we have the right
21 two people here to talk about the safety program and to talk a
22 little bit about system safety and, you know, safety management as
23 it relates to, not just this project, but Sound Transit. So maybe
24 that's where we begin.

25 I mean, Salah, if you can, as the -- you know, if you can

1 give us an overview of the safety program, talk about your office,
2 how many divisions, you know, that -- and is it multi-model, you
3 know, just maybe give us that overview.

4 MR. AL-TAMIMI: Okay. So we -- what I'd like to call is
5 different types of safety in my division. I've got three
6 directors that report to me.

7 Robert is one of them. Robert's world, I'd like to explain
8 it as he takes care of construction for me. So construction
9 safety, and that's the actual construction safety when we are
10 building projects. And then the other part of his group that he
11 takes care of, what we call safety certification and verification.
12 And that's the part where we -- every project that starts in the
13 planning phase, going through design, construction and then from
14 build to operation, Robert and his team are involved and
15 responsible for making sure that we get all the safety
16 certification elements taken care of.

17 One of the biggest achievements we did, we brought a new
18 software to help Robert and his team to be more synced maybe, if
19 the right word is -- and that software allows Robert and his team
20 to streamline the process of safety certification and
21 verification. And that starts with the preliminary hazard
22 analysis in the planning phase, and then he carries it all the way
23 where we transition to the operation phase.

24 Another group I have, which I call it our feet on the ground,
25 this is the operational safety. This group takes care of the

1 operation on Link mode, light rail, and then the other bus, and
2 the third is the Sound, which our commuter rail. And that group,
3 their job is to go out on the field, especially we have third
4 parties run our system for us. So their role is to be out there
5 being proactive working with teams. And what we started doing
6 this year and we started that with the light rail, we, during the
7 annual certification of the operators for the Link, the light
8 rail, we actually go and carve time out of the safety training for
9 these folks and talk to the operators about what do you see out
10 there; what do you think we can solve; is there any hanging fruit
11 out there that we can fix immediately? And it's amazing the
12 information we got from these folks, and actually started
13 implementing a couple things that we heard from these operators
14 that doesn't take much to do.

15 And then in the same group we got what we call our public
16 outreach, and that's where we have an individual goes out to
17 schools, communities, and talk to them about rail safety, what to
18 look for. Be aware, for example, second train, things like that.
19 And then I've got employee health and safety within that same
20 group, and that's to take care of our internal staff.

21 And then the third group I have is the quality assurance
22 group, and that group, their role is an oversight of the design
23 and construction from the design aspect. A little bit different
24 than Roberts. And that group just makes sure the plan specs,
25 drawings, they are matching what design versus constructed. They

1 do surveillances. So we're an oversight and we do random
2 surveillances as needed.

3 So, that kind of, in summary, gives you the picture of the
4 division what I have.

5 One of the biggest things we've taken on for the past 2 years
6 now, and we're going to have another 3 years to continue working
7 on that, is the safety culture, SMS, safety measurement system.
8 So we are starting out with the safety culture for the agency. We
9 did a gap analysis and we found out what gaps we have, and
10 starting with the process of -- you start with the top down with
11 your safety culture. So we mandated that every member of the
12 executive leadership team take the 1-hour FTA safety culture
13 training. And the next step we're doing April 17th, we're giving
14 our executives a class about SMS basically, what is it and why
15 should you care. And we're working with Loraie Stewart. She's
16 actually going to be doing the training.

17 We went -- about second or third week in January, we went
18 down to Portland to see what TriMet is doing, and they were giving
19 a session for their executives. So we went sat in there for the
20 training session to kind of get some ideas of what worked, didn't
21 work with that group.

22 Also, we selected a team of what we call senior level
23 management people that have -- their position have impact and
24 influence on the agency. And those people, the idea there they'll
25 be our ambassadors to help us with spreading the SMS culture, the

1 safety culture for the agency. And these folks are taking the
2 2½-day SMS training from TSI, and actually there are two classes
3 here in Seattle. One starts Monday to Wednesday and the second
4 one Wednesday through Friday. So we have -- and Robert, help me
5 with this one -- he closed it, I think, if I remember, and ask him
6 18, 20 out of the senior management team --

7 MR. TAAFFE: Oh, out of our group?

8 MR. AL-TAMIMI: Yeah.

9 MR. TAAFFE: This is Robert Taaffe. There's 22 out of the 30
10 are going to be senior managers attending the SMS class in March.

11 MR. AL-TAMIMI: And the rest of the eight, mainly from my
12 division, because Robert's group we require them to get their
13 certification from TSI in -- what is it called, Robert, the
14 transportation safety -- the certifications our team gets?

15 MR. TAAFFE: This is Robert Taaffe again. It's
16 transportation safety and security professional certification from
17 the World Safety Organization.

18 MR. AL-TAMIMI: And I think most of his staff that been on
19 board from 2 years or more already have it and his new staff that
20 we hired in the past year or so are taking that training. I think
21 that's the picture --

22 MR. FRIGO: No, that's great.

23 MR. TAAFFE: This is Robert Taaffe. Ryan, the one thing that
24 I would -- and to the committee, the one thing I also emphasize is
25 the way that we're structured on our capital projects is the

1 triangle.

2 MR. AL-TAMIMI: Okay. So the two things -- actually I'd like
3 to go up to -- can I draw something up for you?

4 MR. FRIGO: Absolutely. Yeah, go for it.

5 MR. AL-TAMIMI: It's a lot easier for me to explain. So
6 there are two things (indiscernible) right now.

7 So, first one -- first one what we did, we were asking
8 ourselves the question how does our executives or how do our
9 executives know and are aware of the risks that we are accepting
10 as an agency? So what we did, we have what I call it Fire & Life
11 Safety and Security Committee for each project. Okay. So we've
12 got -- each project has one. So there's many of these. And we
13 have a representative from Robert's group, from the safety
14 certification team, that sits in on each one of these committees.

15 And the purpose of these committees are to work with the fire
16 department and others on any issue that has to have with impacts
17 on design and design mitigations and risk mitigation and risk
18 acceptance. And then -- so we've got many of these things down
19 here.

20 And then we got two more groups, and this group is the design
21 and -- you need to help me out -- Design Safety Security
22 Committee. Okay. And this one used to be chaired by Robert, but
23 since he became a director now its chaired by Ben, is the manager
24 in that spot. So the manager is the chair here, and this is
25 cross-section from agency staff that are subject matter experts.

1 So they sit on this team.

2 So an issue comes up here, cannot be resolved at this level,
3 gets elevated here. This team is delegated the authority to
4 accept any hazard that they feel comfortable that they can accept
5 and justify the acceptance of that. Okay.

6 Let's say they're not comfortable accepting that. Okay. It
7 gets elevated to what we call Senior Oversight Approval Panel.
8 And this one is a senior level staff cross-sectioned from the
9 agency. I used to chair this, but since Robert became a director,
10 Robert is their chair here. Okay. This team has the authority to
11 accept on behalf of the agency any hazard they feel comfortable
12 accepting. And then on top of that, we've got the ELT, Executive
13 Leadership Team, and I sit on that team.

14 So, let's say, the SOAP is not comfortable accepting any
15 hazard, it comes up to here. Okay. Let's say, Robert and I
16 talked about something and Robert is not comfortable -- maybe the
17 SOAP is accepting, but Robert is still a little bit not
18 comfortable, not because they accepted it, but because this risk
19 that we are accepting, executives need to be aware of it. We get
20 on the calendar here, and Robert and his team or the project team
21 come and share that with the Executive Leadership Team. And
22 usually we have a recommendation. Is this for your information;
23 we're looking for a decision. If we're looking for a decision,
24 we've got one, two or three recommendations. So that takes care
25 of the design, takes care of the constructions side of the house.

1 And then on the construction side, I don't know what we call
2 it, but that's Jay is chairing that one. Right?

3 MR. TAAFFE: Yes.

4 MR. AL-TAMIMI: And that's construction issues, we follow the
5 same -- now on the operations side this is the SSO, so it would
6 be --

7 MR. TAAFFE: Safety Security Oversight.

8 MR. AL-TAMIMI: Oversight Committee.

9 MR. TAAFFE: I'm sorry. Operational committee.

10 MR. AL-TAMIMI: Operational. Okay. So, let's say, something
11 out existing in the field. Dale and his group, it comes to his
12 attention. It feeds from the Joint Rail for the -- Joint Rail,
13 there's one for the Sounder; Joint Rail there's one for the light
14 rail, and then there's Employee Safety Committee.

15 So anything comes up from those three groups and they don't
16 feel comfortable making the decision for -- because of their
17 charter says you can't make decision, whatever reason, it goes to
18 this. Dale is the chair on that one. Cross-section again from
19 the agency. A decision cannot be made there for whatever reason,
20 it feeds up to the SOAP. Same process, it goes up to the ELT. So
21 that's how we kind of make sure that our executives know about our
22 process.

23 And then the other one is -- this is a new implementation.
24 So we call the triangle. So you've got a director from operation,
25 director from design, director from planning, and it rotates who's

1 their lead based on the phase the project is in. The idea there
2 that nobody is blind-sided. Any decisions made from a project,
3 you got those three key people at a director level involved in the
4 decision making. Safety is -- we're part of this even though it's
5 not shown in here, but we're part of this. We get involved
6 through Robert's team, meetings or whatever, or contacts with
7 Robert or my one-on-one with any of these people, which we talk
8 either monthly, quarterly, depends on where the life of the
9 project.

10 MR. FRIGO: So the triangle that you just drew.

11 MR. AL-TAMIMI: That?

12 MR. FRIGO: Yes, that one. So that is the ELT? Or it's
13 separate?

14 MR. AL-TAMIMI: No, this is the ELT. This is separate.
15 This is a project. So think about it -- we've got several
16 projects right now. So that's the project.

17 MR. FRIGO: So that's how you look at a project?

18 MR. AL-TAMIMI: Yeah.

19 MR. FRIGO: You look at the roles as operations, design --

20 MR. AL-TAMIMI: Yeah, and whatever phase the project is in,
21 you move the lead up in there.

22 MR. FRIGO: Okay. And since you did draw this on here, and
23 we are going to -- we'll jump around a little bit. I'd like to
24 just -- I have a few questions --

25 MR. AL-TAMIMI: Okay.

1 MR. FRIGO: -- on this that I think right now would actually
2 be the appropriate time to ask them.

3 MR. AL-TAMIMI: Okay.

4 MR. FRIGO: So you talked a little bit about -- and we can
5 stick with the left side, with the project side of the triad.

6 MR. AL-TAMIMI: This one.

7 MR. FRIGO: You talked a little bit about each level having
8 the ability to discuss hazard mitigations or to accept risk. Is
9 there a certain level of risk -- and we'll get into how you define
10 risk, we'll get into that in this discussion. But do unacceptable
11 or undesirable risks automatically go to one of the higher levels
12 or -- go ahead.

13 MR. AL-TAMIMI: So there is in the charter for each group
14 what is acceptable/not acceptable to what type of risk they can
15 accept. The rule of thumb, you know, our -- I don't know if we
16 brought a copy -- our hazard matrix. If it's red -- I mean,
17 basically, if it's red and you can't mitigate the red, there's no
18 project. I mean, and that's I expect this will get elevated to
19 here as fast as possible. I still need the subject matter experts
20 here to talk about it and have recommendations and all that stuff,
21 but if it's red, it's going to flow really fast.

22 MR. FRIGO: And what about an undesirable?

23 MR. AL-TAMIMI: That, it depends on -- that's where we give
24 the subject matter experts the flexibility of is this a technical
25 matter that we can't fix because of A, B, C, and it depends on

1 their appetite. Let me retract that. It depends on the comfort
2 of the subject matter experts, can they accept that risk at this
3 level or not. That's the key there.

4 So it would be the PHA, it would be what the hazard is or be
5 what the mitigation is, and if they cannot accept it at this
6 level, that's when it goes up and that's when Robert -- I used to
7 make that decision. That's when Robert, when it comes to the
8 SOAP, he makes that decision does it need to go up here. And I
9 guarantee it, there are a lot of the orange it be a no brainer.
10 Robert will say it's going to come up to the ELT because we need
11 to share with our agency what the risk it.

12 MR. FRIGO: And now is this a new initiative or was this
13 existing on the day of the accident, this framework?

14 MR. AL-TAMIMI: 2015, Robert, is that when we updated our --

15 MR. TAAFFE: This is Robert Taaffe. This was in process the
16 day of the accident. But we rolled this out in late 2016.

17 MR. FRIGO: Okay. But if -- when we discuss specific
18 elements from the accident later on today, should we be discussing
19 them in this hierarchy, in this framework as far as the committee?

20 MR. TAAFFE: Yes. Because --

21 MR. FRIGO: This would be the framework to use?

22 MR. TAAFFE: Correct.

23 MR. FRIGO: Okay. Great. That definitely helps my
24 understanding. I just want to see if any of the other group
25 members here have any questions on this specific diagram.

1 MR. WAGNER: I have a comment. So you said --

2 MR. FRIGO: Say who you are.

3 MR. WAGNER: This is Jordan Wagner, Sound Transit.

4 MR. FRIGO: Thank you.

5 MR. WAGNER: You said 2016 is when this was rolled out, but
6 most of the project occurred before 2016.

7 MR. AL-TAMIMI: The PHA 2014, Robert?

8 MR. TAAFFE: I think when we rolled -- I'm sorry. This is
9 Robert Taafe again. Let me check specific dates for this
10 committee because I know -- July of 2015, that's what I'm
11 referencing, we rolled out this scenario and established charters
12 for the committees. The preliminary hazard analysis, the initial
13 preliminary hazard analysis for the Point Defiance Bypass Project
14 was prepared by a consultant in December 2014.

15 MR. WAGNER: So under a different framework?

16 MR. TAAFFE: Completely different framework.

17 MR. FRIGO: Okay. And we'll get to -- I want to get to that
18 in detail, but I appreciate you putting this diagram up there to
19 help us better understand the approach to risk management, you
20 know, within Sound Transit. I think this will be helpful for a
21 lot of our discussions today.

22 MR. AL-TAMIMI: Okay.

23 MR. FRIGO: Yeah. Let's leave that up there. I think that
24 that's very helpful. But I do want to follow up with you on a few
25 items that you highlighted.

1 MR. AL-TAMIMI: Okay.

2 MR. FRIGO: So you -- and I think it's impressive that you're
3 taking these steps as an agency to recognize that SMS is the
4 future. And you're laying the foundational work, it sounds like
5 now, to get ahead of any regulatory curve, and so I find that to
6 be impressive. So, you know, does Sound Transit have a safety
7 policy?

8 MR. AL-TAMIMI: Yes, we do. We've got -- actually our safety
9 policy got approved by the board April 2017. Right, Robert?

10 MR. TAAFFE: I got to find it for you.

11 MR. AL-TAMIMI: So he'll find the date for you. But we
12 worked on that one. There is a really -- Robert did a lot of the
13 heavy lifting, but there is a process internally. I think the
14 committee is like 30 people sit on that committee. You go through
15 the draft policy; they go through it, and it's a cross-section
16 from the whole agency. And then Robert did a lot of that work.
17 I'll let him explain what he did.

18 And then we got it to a point where it's ready for the
19 executives and the CEO to review and accept. They did, and then
20 it went to the board staff to put it in the format that the board
21 likes to see policies whatever. And then we -- I think you and I
22 went up, or Ken and I went up, presented to the board and the
23 board adopted either April or May. I don't remember. It was
24 last --

25 MR. TAAFFE: This is Robert Taaffe again. As Salah mentions,

1 we have two. We have an agency policy that was accepted by the
2 board. But then we also have a safety and security policy
3 statement that was originally signed in July of 2015 and then
4 updated with our new CEO Peter Rogoff in 2017.

5 MR. FRIGO: And does the policy outline who the accountable
6 executive is for safety?

7 MR. AL-TAMIMI: Which is the CEO is accountable executive.

8 MR. FRIGO: So that's pretty clear at Sound Transit, that the
9 buck stops with the CEO?

10 MR. AL-TAMIMI: The CEO.

11 MR. TAAFFE: Correct.

12 MR. FRIGO: Okay. And, you know, for my next -- and I
13 appreciate you giving this high-level overview. I realize we
14 could talk for, you know, for hours, if not a day, on the -- not
15 only the structure of your organization but for the safety
16 program. So within the structure, how many employees roughly are
17 in this safety group?

18 MR. AL-TAMIMI: So my division is 60 probably by now.
19 Honestly, I don't remember, but between vacant positions that
20 we're trying to fill, you know, so FTE count is 60. That includes
21 the quality group, that includes the safety operational side, and
22 Robert's. And I'll let Robert talk about how many people are in
23 your construction safety and safety certification.

24 MR. TAAFFE: In the construction safety group we have eight
25 professionals, and on the safety assurance side we have seven.

1 MR. FRIGO: Okay. But 60 FTE total within the --

2 MR. AL-TAMIMI: FTE count.

3 MR. FRIGO: Count.

4 MR. AL-TAMIMI: Some of that could be vacant; some of them
5 could be filled.

6 MR. FRIGO: Right. No, I understand. And is that -- do you
7 see that as the -- does that get you to where you want to go with
8 SMS or is there -- do you feel the need to expand your -- because
9 I know you mentioned there was a gap analysis that was performed.

10 MR. AL-TAMIMI: Yeah. So here's what we are doing. We have
11 a position -- I signed I yesterday to be advertised. So we're
12 going to advertise a position for SMS Lead.

13 And then the idea behind SMS, I just have conversation with
14 the deputy CEO yesterday about we want to form -- because right
15 now everything is managed within my own group. We are forming a
16 committee and that committee is going to be a cross-section from
17 the agency. And the idea there, that -- and people need to be at
18 a senior level. So when we start with the SMS implementation,
19 let's say there's a hiccup with planning, we go to that board that
20 we have a committee, we go to the planning member; he or she will
21 be at a senior level. We'll have that individual to chase what's
22 the hiccup here; why this team cannot do or why can't we get
23 information from you? So we're in the process of forming that
24 team, but currently Robert -- my staff basically is managing SMS.

25 MR. FRIGO: Okay. As far as -- we've talked a little bit

1 about below you.

2 MR. AL-TAMIMI: Yes.

3 MR. FRIGO: With the 60 FTE. Who do you report to?

4 MR. AL-TAMIMI: I report to the CEO.

5 MR. FRIGO: And is it directly to the CEO?

6 MR. AL-TAMIMI: Directly to the CEO.

7 MR. FRIGO: And within the structure, do you have any
8 reporting, whether it be a dotted line, to the board of directors
9 or is it just directly to the CEO?

10 MR. AL-TAMIMI: Just directly to the CEO. I still have my
11 one-on-one with the deputy CEO, and I have multiple one-on-one
12 with ELT staff and some project directors.

13 MR. FRIGO: How can I understand the role of the board in
14 safety? Is there a standalone safety committee on the board?

15 MR. AL-TAMIMI: I need help with that one. I know safety --
16 on the board there's an operational safety that operation does,
17 and issues are taken through that group from the operational
18 safety. But from my end, I --

19 MR. FRIGO: Okay.

20 MR. WAGNER: This is Jordan Wagner. Are you asking if
21 there's a committee on the board, a safety committee?

22 MR. FRIGO: Safety and security committee or a --

23 MR. WAGNER: No, there's not. And the -- we have several
24 department -- several subcommittees on -- several committees on
25 the board: the operations, capital projects, executive committee

1 and audit committee.

2 MR. FRIGO: Okay. So any of those issues could come up
3 through any of those committees?

4 MR. WAGNER: They will come up through operations or the
5 capital program committee.

6 MR. FRIGO: Okay.

7 MR. WAGNER: The construction.

8 MR. FRIGO: Okay. And as the chief safety officer, are you
9 comfortable with that approach? Do you feel that you're able to
10 -- if you have to bring something up to the board, you're able to
11 do that?

12 MR. AL-TAMIMI: Yes.

13 MR. FRIGO: Okay. Let's just transition a little into some
14 of the programs, the existing safety programs that exist. And we
15 can, you know, we can keep it at an operations level and then a
16 project-based level. But I know you've shared your SSPP with me.
17 I've seen your SSMP. So maybe if we could just talk a little bit
18 about those two documents and any other -- you know, any of the
19 programmatic documents that drive the safety programs.

20 MR. AL-TAMIMI: Okay. So this is Salah again. So from the
21 SSPP we've got one for Link, and per the IGA with the county, the
22 county is the lead on maintaining, updating. So that takes care
23 of Link.

24 And then we've got another one for Tacoma Link, which we
25 operate, and then we've got the Sounder. And the Sounder gets a

1 little bit tricky because you got BNSF, you got Amtrak, you got
2 us. But that one, we work with Martin's group from operations,
3 and that's our program plan for that one. And then, you know,
4 we've got another the SSCP, which is the certification plan for
5 agency, and that's for Robert's group.

6 MR. FRIGO: And on the SSPP, so let's just take one for --
7 let's take Sounder and -- is there one on the bus side or do you
8 just currently have them on the rail side?

9 MR. AL-TAMIMI: No. We have them on the rail side. This is
10 a good question because we talked about it. We developed a draft,
11 but we decided not to publish it because we've got, again, three
12 separate entities running our system for us. So we feed through
13 their -- each agency will rely on their own plan. And because we
14 did not see the benefit of -- you know, it gets too confusing.
15 And when we tried and did the draft, it just was too confusing.

16 MR. FRIGO: So what's an example of maybe an element that
17 would, you know, might be complicated to integrate into a multi-
18 model plan?

19 MR. AL-TAMIMI: So this is -- we are still in progress within
20 our agency, because the agency safety plan we're still in
21 conversation internally, what do we want that to look like?
22 Because it needs to be multi-model, right? So we said, okay, so
23 if you're going to have one for bus, okay, now, you've got three
24 other ones you have to tie into. And then you got your Link, and
25 then we've got two Links; one our Link and one in the third party,

1 which happens to be the county, King County running it for us
2 right now. And then we've got the Sounder, which again, you've
3 got BNSF and you got Amtrak on that, and who knows who else can
4 end up using our line. So it's -- we're still looking at pros and
5 cons and see how we're going to do the agency plan.

6 One idea we're throwing out there is we have kind of like an
7 umbrella approach where we reference each mode. But honestly, I
8 don't know if we're going to end up with that at the end of the
9 day or not. But that's the thought right now.

10 MR. FRIGO: Thank you for sharing that. So on the -- let's
11 talk about the Sounder SSPP, because I think that's the one most
12 relevant to the accident that we're here to discuss. Why have an
13 SSPP for Sounder? Is there a requirement to have that or why does
14 Sound Transit have that SSPP?

15 MR. AL-TAMIMI: Why do we have one?

16 MR. FRIGO: Um-hum.

17 MR. AL-TAMIMI: Because we need to have plans to operate our
18 system, so we feel there's a need for that.

19 MR. FRIGO: Okay. Is there any regulation that --

20 MR. AL-TAMIMI: There is. I can't cite what number.

21 MR. FRIGO: Okay. What are some of the elements that are
22 comprised in the SSPP?

23 MR. AL-TAMIMI: You talking about the 21 elements? Man, it's
24 been a while since I reviewed them.

25 MR. FRIGO: Well, you can even -- you know, let's just talk

1 about hazard management.

2 MR. AL-TAMIMI: Um-hum.

3 MR. FRIGO: Let's just -- let's talk about that and, you
4 know, should I think of the SSPP as the -- is that the document
5 that's in play once operations begin --

6 MR. AL-TAMIMI: Correct.

7 MR. FRIGO: -- or is that a document that governs pre-
8 revenue? How should I think of it from a hazard management
9 perspective?

10 MR. AL-TAMIMI: Well, so the SSPP starts when your operations
11 starts. Okay. And then anything should be covered with your SSMP
12 and CP.

13 MR. FRIGO: Okay. And then as far as I think it's Section 4,
14 I think, but -- I've looked at several of the documents, but -- so
15 from an operating perspective, how do you generate -- I know we
16 talked a little bit about it on the chart, but how are hazards --
17 during operations how are those discovered? How do you generate
18 that data, that information?

19 MR. AL-TAMIMI: So we've got several avenues. So you got
20 your Joint Rail. And the Joint Rail is attended by WSDOT, us,
21 BNSF. I'm trying to think who else sits on that Joint Rail. And
22 any operational issues, hazards, whatever it is, it needs to come
23 through that. So that's one avenue of doing it.

24 I know on Martin and Whalen's side, they work very close with
25 BNSF and Amtrak and their day-to-day operations. So if anything

1 comes up from that end, these guys bring it through the Joint
2 Rail. And then from the Joint Rail, depends on what the issue is,
3 a decision is made how -- it kind of branches out from there.

4 MR. FRIGO: Does Amtrak sit on the Joint Rail?

5 MR. AL-TAMIMI: They are a member. I do not sit on that
6 committee. We've got a couple of staff that go to it.

7 MR. FRIGO: Maybe that's something that can be provided to
8 me, just a -- you know, who sits on that committee.

9 MR. AL-TAMIMI: Okay.

10 MR. FRIGO: You know, organization, railroad name --

11 MR. AL-TAMIMI: Sure. Sure.

12 MR. FRIGO: That would be helpful.

13 MR. AL-TAMIMI: Okay.

14 MR. FRIGO: And so, let's just take a hazard. Let's take --
15 let's just use the example of overgrown brush --

16 MR. AL-TAMIMI: Okay.

17 MR. FRIGO: -- and line of sight. So how would something
18 like that --

19 MR. AL-TAMIMI: So you got your -- you got a designated
20 employee in charge. They're responsible for their section.
21 They're supposed to walk it, inspect it, and I get it mixed up
22 with the light rail, I think twice a week, maybe once a week for
23 FRA. I don't remember. But they are responsible in that section
24 and then they're responsible to report anything, you know, like
25 that. And then depends on agreement, who maintains what. So if

1 it's BNSF tracks, then they maintain it. Then Whalen and his
2 group communicate that to them, assuming we do the inspection on
3 it.

4 MR. FRIGO: Would it get carried as a hazard within that
5 joint group --

6 MR. AL-TAMIMI: They have their --

7 MR. FRIGO: -- for tracking purposes?

8 MR. AL-TAMIMI: Yes, they have their tracking mechanism. I
9 don't get involved with that.

10 MR. FRIGO: Okay.

11 MR. AL-TAMIMI: I don't see it.

12 MR. FRIGO: I can appreciate that.

13 MR. AL-TAMIMI: This is more of a Dale Lewis on the
14 operations side, that's -- he deals with that.

15 MR. FRIGO: Yeah, I'm just curious.

16 MR. AL-TAMIMI: Do you know Robert? From my end, I'm not
17 sure if there's a --

18 MR. TAAFFE: Well, specifically for the Sounder I don't, on
19 how that reporting mechanisms go. I can -- on the light rail
20 side, there's a report, a HAZ TIC. And so, if you're an operator
21 and you see an anomaly, a default, something that's out of play,
22 you fill out that HAZ TIC. It goes to the rail supervisor and, if
23 it's a quick fix, obviously, the power crew, the maintenance of
24 way guys go out there, our crews go out take care of that. If it
25 needs to be elevated because it's more of a global, maybe a

1 procedural, then it would elevate through these committees.

2 MR. FRIGO: Okay.

3 MR. AL-TAMIMI: The Joint -- there's employee safety on the
4 light rail side for the county that things go -- populates this
5 way. So the form gets filled out, goes to the superintendent,
6 goes to that group. And then from that group, if it's not
7 resolved, it goes to the Joint Rail.

8 MR. FRIGO: Does the hazard log from, let's say, the Sounder
9 side, from that joint committee, is there any communication ever
10 between that group and, let's say, on the Link side?

11 MR. AL-TAMIMI: No, we don't -- it's two separate operations.
12 Two separate entities.

13 MR. FRIGO: No, and I understand that.

14 MR. AL-TAMIMI: I know there is a register for them because
15 there's a couple times their sea tides was brought up.

16 MR. FRIGO: Okay.

17 MR. AL-TAMIMI: Yeah, I'm not sure what the follow-up, but
18 yeah, they keep track of it and --

19 MR. FRIGO: And as far as your -- you said there were two
20 different on the light rail side. How many different -- there's
21 the --

22 MR. AL-TAMIMI: Okay. So on the light rail -- so Joint Rail
23 -- CSSOC, below it there's the Joint Rail and there's the
24 employee, which is a county run committee. So that committee is
25 first and then goes to the Joint Rail. Joint Rail on the light

1 rail side is the county and Sound Transit. And then it depends on
2 the nature, what Robert explained, it gets addressed within the
3 OPS group or it needs to get elevated to the committees. So it
4 depends on the nature of --

5 MR. FRIGO: So light rail is not looked at separately as far
6 as who the operator is, whether it's county versus -- I think you
7 said Tacoma was one of the other -- from a safety perspective. So
8 if a hazard is generated --

9 MR. AL-TAMIMI: Hazard is a hazard, right?

10 MR. FRIGO: No, I understand that. I'm trying to get at if a
11 hazard is generated through committee on the -- in Tacoma, would
12 one of the other light rail operations that's separate from that,
13 would they be part of that information sharing? You know, whether
14 -- maybe it's a mirror failure or, you know, whatever that gets
15 picked up, do they ever share that information or is everything
16 just looked at --

17 MR. AL-TAMIMI: So the common party would be Dale and his
18 team --

19 MR. FRIGO: Okay.

20 MR. AL-TAMIMI: -- between the two groups. I don't want to
21 assume. I don't know. I just --

22 MR. FRIGO: Okay. All right. Yeah, I was just curious about
23 that, how that might work.

24 MR. AL-TAMIMI: We can get you the answer if you want.

25 MR. WAGNER: This is Jordan Wagner. I just wanted to point

1 out for purposes of discussion, I don't know what the answer is
2 either, but our two light rail systems are completely different in
3 that one is kind of a higher speed system, and that's our main
4 system that runs through Seattle, and the Tacoma light rail
5 system, which is about a mile and a half long and is more like a,
6 sort of a street car.

7 MR. FRIGO: Okay. You know, not being from the area --

8 MR. AL-TAMIMI: Okay. Maybe I should have explained that.

9 MR. FRIGO: But no, but that's helpful.

10 And now on the SSMP and the safety certification plan, you
11 know, how do those help govern what goes on as it relates to
12 projects?

13 MR. TAAFFE: This is Robert Taaffe. It provides us that
14 roadmap consistency, and some one coming in in the middle of the
15 project, new hire, can pick up that plan and see what that roadmap
16 or plan is to get to the finished product, which is transitioning
17 to operations.

18 MR. FRIGO: And what are some of the -- what's comprised of
19 the plan? What's the plan made up of, like the SSMP?

20 MR. TAAFFE: The SSMP -- Robert Taaffe again. The SSMP,
21 again, starts out with the individuals' roles and responsibilities
22 for the specific individuals in the agency and how they fit into
23 the plan. Then we talk about hazard resolution, mitigation,
24 design conformance, construction conformance, and then the actual
25 verification of those elements to mitigate the hazard identified

1 in our preliminary hazard analysis.

2 MR. FRIGO: Okay. And we can -- we'll save some of the
3 detailed discussion for a little bit later this afternoon. But --
4 so as far as high level governing documents for operations and for
5 projects, I mean, do we cover it by what we just talked about with
6 the SSPP and the SSMP and then the safety certification plan, or
7 is there something we're missing that maybe we should -- is there
8 anything else we should talk about? And, again, I'm high level,
9 you know, programmatic documents.

10 MR. TAAFFE: With respect to light rail, Sounder, bus?

11 MR. FRIGO: Let's the about Sounder.

12 MR. TAAFFE: So on Sounder, those are the two -- the SSMP,
13 SSCP are the two main documents that I utilize with my team until
14 we're ready to transition into operations.

15 MR. FRIGO: Okay. And what about on light rail?

16 MR. TAAFFE: On light rail the only difference there would be
17 we would also have a pre-revenue plan that we would generate, that
18 we would oversee complete and finalized and integrate into that
19 document going over to operations.

20 MR. FRIGO: What are some of the elements that would be in
21 that pre-revenue plan?

22 MR. TAAFFE: Testing the system -- dynamic testing, not just
23 a static, running trains; incremental speeds; operator, having
24 operators come out for the new territory or for the new light rail
25 system; ad then, of course, tracking any deficiencies,

1 abnormalities, issues through again HAZ TICs; and more importantly
2 also checking our dynamic clearances as well to make sure that the
3 train meets the platforms that and can operate in the environment.

4 MR. FRIGO: So all pre-revenue operational testing
5 essentially?

6 MR. TAAFFE: Yes.

7 MR. FRIGO: Is there something similar on the Sounder side
8 that would be used? Because we're using that example from light
9 rail, but is there a similar one that is used on the Sounder side?

10 MR. TAAFFE: For on the --

11 MR. FRIGO: With the same type of elements.

12 MR. TAAFFE: Yes. On the earlier Sounder projects for the
13 D to M, and M to Lakewood, I don't have specific institutional
14 knowledge. I wasn't involved on that particular aspects of those
15 programs. But I can certainly check and see if we had a rail
16 activation program or plan associated with those projects.

17 MR. FRIGO: Let me ask it in a different way. On the light
18 rail side, what you described is that -- is there a mandate that
19 that's -- that it's done that way?

20 MR. TAAFFE: Is there a mandate? This is Robert Taaffe
21 again. It's part of the project.

22 MR. FRIGO: Okay. Okay.

23 MR. TAAFFE: Because, again, it gives us the information. It
24 makes sure everybody is on the same page of what's needed to go to
25 the next step, to transition to operations.

1 MR. FRIGO: And, again, how does that compare to -- because I
2 haven't seen something similar for Sounder, a similar what you
3 described. I haven't seen that. And I don't know if that's just
4 -- it hasn't been provided. I've seen the FRA, the 238 testing
5 requirements.

6 MR. TAAFFE: Right.

7 MR. FRIGO: I've seen that. But I haven't -- what you
8 described as far as a pre-revenue testing, the operational testing
9 on the light rail, I haven't seen it for this project for Sounder.
10 And is that just I'm haven't looked at the right document; is it
11 called something else?

12 MR. TAAFFE: So to clarify. And this is Robert Taaffe. On
13 this particular Point Defiance Bypass project, what we were tasked
14 to do is, with WSDOT, to verify, certify the operating environment
15 and then get to a point of transitioning that operating
16 environment to WSDOT, who was coordinating with Amtrak to provide
17 those train sets to run through that process, to run through that
18 pre-revenue service testing, dynamic clearance activities.

19 MR. FRIGO: Okay.

20 MR. TAAFFE: And we started the conversations with both
21 Amtrak and WSDOT back in, I believe, March of 2017 on that -- on
22 what that process would be, what it would look like. And I don't
23 know who had the lead, but there was a pre-revenue plan that we
24 just uploaded for you, I believe last week or maybe earlier this
25 week, that was generated -- the 238, but if you look in there they

1 actually talk about qualification runs for their engineers.

2 MR. FRIGO: Okay. So let's put it this way. I think the
3 most beneficial thing to do would be to -- if there's emails or if
4 there is a -- because I believe that you said that there was an
5 understanding that WSDOT would do certain things.

6 MR. TAAFFE: Correct.

7 MR. FRIGO: And that you would turn over the operating
8 environment to WSDOT and over to -- in order to complete those
9 tasks.

10 MR. TAAFFE: That's correct.

11 MR. FRIGO: Okay. It would be very helpful to me if Sound
12 Transit could provide that -- you know, how do you derive at that?
13 Is it through -- is there a memorandum of understanding? Is there
14 an agreement? Is it an email? Is it an agenda item on a -- at a
15 meeting? You know, if that could be provided to me --

16 MR. TAAFFE: Understood.

17 MR. FRIGO: -- I'd appreciate that.

18 MR. TAAFFE: Okay.

19 MR. FRIGO: So let's move on, though.

20 MR. TAAFFE: All right.

21 MR. FRIGO: You know, so Sound Transit will provide that and
22 we'll have an answer there.

23 We talked a little bit about the data collection that exists
24 on the operating side. I know you mentioned an abnormality or
25 defect form that gets used --

1 MR. TAAFFE: Robert Taaffe. The term is a HAZ TIC.

2 MR. FRIGO: Okay.

3 MR. TAAFFE: If you make an observation, a concern, something
4 even so much as the seats are uncomfortable or don't adjust well,
5 you can document that and give it to your supervisor for --

6 MR. FRIGO: Does something similar exist on Sounder; do you
7 know?

8 MR. TAAFFE: I am not aware because Burlington Northern
9 operates all of our Sounder trains.

10 MR. FRIGO: Okay. Do you know if there's a -- is there any
11 -- is data collection from a safety perspective discussed in the
12 Sounder SSPP; do you know?

13 MR. AL-TAMIMI: This is Salah. It's been a while since I
14 reviewed it. I know we have a performance clause in there which
15 talks about safety and I know we're in the process -- we just
16 signed the plan, but we're still trying to improve on our
17 performance measures there in the plan.

18 MR. FRIGO: Okay. So maybe something to consider, like, you
19 know, having similar type actual what you're looking for as far as
20 hazard. And I understand you're not the operator. I understand
21 that, and you're developing an SSPP for another operator to
22 utilize. I understand that. I just -- I think it's interesting,
23 you know, when you -- different railroads and different transits
24 have different ways of collecting data. Railroads and transit
25 properties are data rich environments. There's a lot of

1 information there. But, you know, and I was just curious again on
2 Sounder, if there was something similar, that it was expected that
3 maybe an operator or someone can submit information in to be --

4 MR. AL-TAMIMI: So this makes it a little bit difficult
5 because BNSF is the operator and you got unions, you got all that
6 stuff.

7 MR. FRIGO: Uh-huh.

8 MR. AL-TAMIMI: So from our end, Joint Rail is the mechanism
9 that we get information. And they meet, if I remember right,
10 every other month.

11 MR. FRIGO: Okay.

12 MR. AL-TAMIMI: And in -- Martin and his crew they're a lot
13 closer to it because that's the operations side. We do attend,
14 one or two people from my division attend those meetings. Things
15 get elevated to my level that has to be safety concerns. But,
16 again, it makes it difficult when you don't own the line, you're a
17 guest on the line, so it makes it a little bit tricky.

18 MR. FRIGO: No, understandable.

19 MR. AL-TAMIMI: But any safety issues that come up, I mean,
20 we work, we team up with BNSF and we try to assist with them. But
21 it's just, the rules are a little bit --

22 MR. FRIGO: And maybe that's something -- we'll pause here in
23 a little bit after we get over this section 1. Maybe we'll pull
24 out the SSPP and just -- I'm just curious. We'll just take a
25 look.

1 MR. AL-TAMIMI: Okay.

2 MR. FRIGO: What about data collection during project and
3 really during the pre-revenue phase, and I think you kind of --
4 Robert, you alluded to it a little bit with this pre-revenue
5 testing plan that exists on the light rail side. Should I think
6 of that as an operational hazard analysis? I mean, how should I -
7 - is that a component?

8 MR. TAAFFE: This is Robert Taaffe. It would be a component.
9 It allows a feedback mechanism from the actual train operators to
10 tell us the light you have in the tunnel is way too bright, it
11 hits my eyes when I go around this corner, as an example.

12 MR. FRIGO: Uh-huh.

13 MR. TAAFFE: So it, again, allows feedback from the operators
14 on something that may not be caught in a static environment.

15 MR. FRIGO: Let's just -- let's stick with that feedback
16 loop. How does the -- if something gets -- using that example,
17 the light in the tunnel that an operator brings up -- and I know
18 we're kind of talking pre-revenue but we can also talk during
19 revenue. That gets brought up into a committee; it gets resolved.

20 MR. AL-TAMIMI: The form gets filled -- are we talking
21 operational or still preoperational?

22 MR. TAAFFE: We talking pre --

23 MR. FRIGO: Let's say pre-operational.

24 MR. TAAFFE: I'm sorry, Ryan, I don't want to make any
25 assumptions. But from a pre-operational -- and this is Robert

1 Taaffe. If our systems integration test manager is out with the
2 operator who we are doing incremental speed test and dynamic
3 clearance, signal testing, whatever aspect it may be, OCS testing,
4 and he makes this -- he, the operator, the light rail vehicle
5 makes this observation, notes it on a HAZ TIC, that goes to the
6 systems integration test manager. And then we'd work with our
7 contractor to resolve that, both with the engineer of record and
8 our construction management team: Hey, we need to adjust this
9 light; we need to make sure that this is not -- that we've
10 mitigated this. The luxury there is we still have a contractor.
11 We don't have an operating environment, that is, a public service
12 operating environment, so we can go in and make those changes
13 quickly.

14 MR. FRIGO: And in your experience, has anything ever come up
15 in any of the projects where you've had to transition to revenue
16 operations with a restriction in place?

17 And I'm -- you know, let's use the example of a grade
18 crossing. Perhaps the timing is not -- you know, the timing is
19 not down or perhaps there's a passive or an active sign that's
20 been identified that you need but you can't get it installed by
21 that revenue date, so you put a restriction, and whether that's,
22 you know, posting individuals at the crossing or however, you
23 know, you decide to do it. Can you think of any times where
24 you've had to -- you know, where the project has had to be
25 flexible when turning it over to ops?

1 MR. TAAFFE: Yes.

2 MR. FRIGO: Okay. I mean, how does that go? I mean, is
3 that --

4 MR. TAAFFE: This is Robert Taaffe. As we're working through
5 the safety certification elements and getting to finalizing our
6 safety and security certification verification report, we will sit
7 down and look at any remaining open items. The majority of those
8 items may be operation maintenance manuals. We may have a version
9 that hasn't been fully vetted or looked at.

10 Another example I could provide you is when we opened up the
11 University Link the access control to the platform gates were
12 malfunctioning. They were not giving a direct signal feedback to
13 our Link operation control center that someone had opened that
14 gate. It's obviously a very serious issue to keep folks out of
15 the operating -- the dynamic envelope.

16 You identify work-arounds. You identify what we can do to
17 mitigate this until we fix it to not, if you will, interrupt or
18 stop service. In that particular instance, we had a security
19 officer posted to watch those gates until they were corrected.

20 MR. FRIGO: So it's been done before, when necessary, when
21 needed?

22 MR. TAAFFE: When needed.

23 MR. FRIGO: Okay. And now I just want to go back to the same
24 example, let's say it's a tree blocking a signal aspect or
25 whatever that an operator reports during operations. And does

1 that operator or the group of operators -- is there a feedback
2 loop that they get safety communication through?

3 MR. AL-TAMIMI: So, I gave an example that we started this
4 year doing the re-certification of the operators. Myself and the
5 director for safety operation, we took an hour out of the safety
6 training and we -- solely was for feedback from them. And we got
7 I think about 50, 60 comments, and some of them we were able to
8 fix right there. I mean, it didn't take us much effort.

9 So this is what we did. They have a form that the operators
10 fill out if they see something. This issue came up when we
11 interviewed these operators, and I'm talking Link; I'm not talking
12 Sounder. Okay. So one of the things we asked them, how can we
13 make it easier on you to report near misses, close calls, because
14 we're all humans and we acknowledge that sometimes, some days
15 you'll end your shift and just want to go home. So how can we
16 make it easier on you?

17 And there were a few suggestions that were thrown out there.
18 For example, where they take their break, they thought if we put
19 the forms there, you know, they can fill it out right there. So
20 that's something we did. We put the forms right at both ends now
21 of the run. There were some suggestions that I don't know if
22 we'll ever implement, you know, like technology, with GPS and all
23 the stuff.

24 But anyway, so there is that mechanism that way for the
25 operator to feed the information. So if they go that paperwork

1 route, operator fills it out; it goes to the superintendent.
2 Superintendent gives it to the county safety superintendent, and
3 that's where either it gets to the employee safety group from King
4 County or it goes to the Joint Rail between Sound Transit and the
5 county. And the county has a policy if something sits in I think
6 for 60 days and nothing happens, it gets elevated to higher level
7 in their agency.

8 MR. FRIGO: Is there a communication back to the reporting
9 employee?

10 MR. AL-TAMIMI: So this is one thing they asked us about, and
11 this is part of SMS culture. And they have a bulletin, and that's
12 we asked -- most operators they thought this is the feedback
13 mechanism they want. So they have a bulletin and that's safety
14 feedback that their safety superintendent gives them updates or
15 whatever. So they ask us to -- all these comments that we got
16 from them right now, to make sure they get feedback that way and
17 also they told us to make sure that when they submit one of those
18 comments that the feedback loop gets posted so people, operators
19 can know that this issue either got addressed, or whatever the
20 next step is.

21 MR. FRIGO: Great. Thank you. Okay. So, I am -- I'm good
22 on part 1, which is understanding -- you've got a lot going on,
23 you know, and it's good to hear that there's a lot of enthusiasm
24 with SMS and getting the right pieces in place. That's good to
25 hear. So I'm going to turn it over to some of my colleagues here

1 to follow up again, just sticking with what we've been discussing
2 already this morning.

3 MR. PATE: Yeah. This is Ron Pate from Washington State
4 Department of Transportation. I have one question about
5 238.111(a) document. I think Robert mentioned that. Who at Sound
6 Transit would review that document?

7 MR. TAAFFE: We have -- Robert Taaffe. In Sound Transit the
8 operational staff, Martin Young, Whalen Doyle, reviewed that
9 document, both the plan itself and the report when it was sent
10 over.

11 MR. PATE: Did they have --

12 MR. TAAFFE: I reviewed -- pardon me, Ron. I also reviewed
13 the document itself. Them being the technical subject matter
14 experts for Class 1, railroads they reviewed and --

15 MR. PATE: And did they provide comments on that; do you
16 know, Robert?

17 MR. TAAFFE: I believe that Whalen Doyle had one comment on
18 that document.

19 MR. PATE: And do you know if that comment was resolved?

20 MR. TAAFFE: I believe it was, to the satisfaction to where
21 the document was accepted.

22 MR. PATE: Okay. That's all I had.

23 MR. CHAPPELL: Michael Chappell from SMART Transportation
24 Division. Just so I can understand it. When you get your project
25 going and you get your analysis and everything going, do you go

1 out and do the whole track area for Sounder, for one, for this
2 area that we're talking about where the accident -- do you do the
3 whole safety analysis for that entire route before you start your
4 construction, before you get it ready for revenue?

5 MR. TAAFFE: This is Robert Taaffe. Michael, I hope I'm
6 addressing your question here. We sit down at a workshop setting
7 with representatives from all parties and do a preliminary hazard
8 analysis workshop, which is a general overview of hazards that
9 would be associated with operating a train, whether it's a light
10 rail or a locomotive, in that environment.

11 For the Point Defiance Bypass, those elements were with the
12 grade crossings that we looked at. But then also the immediately
13 adjacent interstate highway, there was some supply areas around
14 there that had propane natural gas, commercial storage; we put
15 together that preliminary hazard analysis. We do that around the
16 60 percent design so we have a general understanding of what the
17 engineers of records and designers want to build and construct.
18 We go from there, and any of those hazards that we've identified
19 in the mitigations has a design-captured mitigations of those
20 hazards.

21 So I hope that answers your question. We do look at it from
22 a global sense and not from a specific element.

23 MR. CHAPPELL: What parties are involved? Is it --

24 MR. TAAFFE: On this particular, the Point Defiance Bypass,
25 it was obviously Sound Transit, representatives from the

1 Washington State Department of Transportation, Amtrak, Burlington
2 Northern; the UTC, who's the Utility and Transportation Commission
3 who oversee rail safety in this state; and the designers, who is
4 HDR.

5 MR. CHAPPELL: Okay, thank you. I just -- curious to find
6 out.

7 MR. TAAFFE: No, you're more than welcome.

8 MS. IMPASTATO: Theresa Impastato. In the committee process
9 that you have where you assess and assign mitigations for hazards,
10 is there ex-officio representation from any labor organization?

11 MR. TAAFFE: No. This is Robert Taaffe. No.

12 MS. IMPASTATO: Relative to the hazard reporting process you
13 described the HAZ TIC. That is not an anonymous system of record,
14 correct?

15 MR. TAAFFE: This is Robert Taaffe. You know, I'm not sure
16 if it is or not. I don't know if it is anonymous.

17 MR. AL-TAMIMI: She's talking about the CAPs or what?

18 MR. TAAFFE: No, no -- and please clarify if I'm getting this
19 wrong. What Theresa's asking is when anyone out there on the
20 right-of-way or even in the office makes an observation that's a
21 hazard, like the cord in the conference room is a tripping hazard,
22 when they fill out that HAZ TIC or notify See Something, Say
23 Something -- we also have an electronic means to do it, is that
24 anonymous? Does it go anonymous or is it linked to a name?

25 MR. AL-TAMIMI: You can put your name in there or you can

1 just leave it blank. So it's the person's choice. If you want to
2 hear back, be smart to put your name. But remember, the part I
3 said we -- on the board, they want the safety, you know, response
4 what are you doing to this, because -- I can't quantitate how many
5 come without names because you can't go back to the individual.
6 That's why we -- they want to post it, because how you going to go
7 back to them? So that's my assumption probably, you know, have
8 some will put names down.

9 MS. IMPASTATO: In this process for reporting safety issues
10 and concerns, are third parties outside of the Sound Transit
11 organization capable of submitting a report?

12 MR. AL-TAMIMI: So third party, third party as our partner or
13 third party as anybody would? When you say third party, as our
14 partners?

15 MS. IMPASTATO: Both. Third party as in someone who
16 interfaces with the system. If I'm a passenger, a station
17 occupant, member of the general public, and third party as in if
18 I'm involved in the operation, as an operator or maintainer of the
19 system.

20 MR. AL-TAMIMI: So the third party that's a partner, they,
21 you know, usually go through their process or whatever process
22 internal they have, and then it comes to either the Joint Rail if
23 you're talking about Sounder, or if you're talking about Link,
24 then it goes to KCM. Also, the Joint Rail, just happened to be
25 that. For our riders there is a link that -- and I can't remember

1 the email, but they can report it that way too.

2 MR. TAAFFE: We have basically a complaints department people
3 can either email or call.

4 MS. IMPASTATO: So with the data that's obtained via these
5 multiple mechanisms, is there an aggregation of this data that's
6 reviewed by the committees?

7 MR. AL-TAMIMI: So if it -- let's say a third party as a
8 passenger, rider, it goes to -- it's part of the security
9 department. It goes in there and they do the vetting for it.

10 Robert, you're our rep from our division, so if it has to do
11 with safety issues it goes to Robert and then Robert decides which
12 way it goes. And then if it's to other division, it just goes to
13 them and they address it.

14 If it's coming through our partners, then it'll go through,
15 but eventually it'll come to the Joint Rail, whatever internal
16 process they have.

17 MS. IMPASTATO: Okay. And I only have one other question
18 around this data. Does Sound Transit do any kind of analytics?

19 MR. AL-TAMIMI: Yes.

20 MS. IMPASTATO: What sort of analytics do you do?

21 MR. AL-TAMIMI: So right now we are taking -- I want to call
22 it -- let's see, where are we with it. We started with that; we
23 have the staff now to do it. We're trying to be proactive. We're
24 trying to be ahead of the game. So we look at any hotspots we
25 have. This is more on the Link side. So we have, you know, these

1 are the hotspots; we keep track of it. And then we have our
2 thresholds, and when it hits the threshold it will go to whatever
3 category we have and it gets addressed accordingly.

4 On the Sounder, I'm --

5 MR. TAAFFE: Usually -- this is Robert Taaffe. Theresa, on
6 the Sounder our customers will make general complaints to the
7 conductor, and then that again is gone through the BNSF process
8 because they are all BNS employees. But they will -- BNSF
9 representatives will bring that issue or concerns to the Sound
10 Transit Sounder operational managers -- Martin Young, Whelan Doyle
11 and Brian Sims -- for resolution. I think the last one we had
12 dealt with like a first aid kit that was in the passenger car.
13 Somebody needed a Band-Aid and it was empty. So that was a
14 follow-up.

15 If a customer actually contacts us directly, our customer
16 service or, as Jordan mentioned, our complaints department, they
17 will get back with that customer directly for feedback, whether
18 it's even a thank you, we'll take this into consideration, or it's
19 been resolved.

20 MS. IMPASTATO: Thank you. Nothing further.

21 MR. TAAFFE: You're welcome.

22 MR. WAGNER: This is Jordan Wagner. Just one sort of
23 clarifying. So with regard to sort of geography, when a complaint
24 does come in BNSF's manager for commuter rail and Sound Transit's
25 manager for commuter rail sit right next to each other. They are

1 -- BNSF is co-located in our office.

2 MR. FRIGO: That's very helpful. Thank you. That's why
3 you're here. All right. So I think we should take a break right
4 now and I just want to thank you both for --

5 MR. TAAFFE: You're welcome.

6 MR. FRIGO: -- giving us some great information on the
7 organization on how it's constructed and kind of the future, too,
8 where you're trying to take it. So, let's take a break, 5-minute
9 break and then we'll come back and talk more project specific.

10 MR. TAAFFE: Okay.

11 MR. FRIGO: Okay, great.

12 (Off the record.)

13 (On the record.)

14 MR. FRIGO: Okay. This is Ryan Frigo. It's March 15th,
15 2018. We are here in Federal Way, Washington, and we are back on
16 the record with Salah and Robert from Sound Transit.

17 We spent the first part of our morning talking about the
18 organization of the safety department at Sound Transit, some of
19 the governing policies and documents and programs and also
20 discussing some of the safety committees that exist as it relates
21 to day-to-day operations and also during projects. And then we
22 talked a little bit about where Sound Transit wants to get to with
23 safety management systems.

24 So at this point I'd like to transition to talking about the
25 accident and the pre-revenue activities and discussing the SSMP

1 for the Point Defiance Bypass project. So I think Robert will
2 probably do more of the talking here, but, you know, if whenever
3 -- Salah if you're going to answer, if you could just again say
4 who you are for the benefit of the transcriptionist, and the same
5 to you, Jordan. You know, we have Jordan here as the
6 representative for both Robert and Salah and I appreciate you
7 providing some clarity when needed in the first part of our
8 discussion.

9 So, Robert, you know, why don't -- let me just throw kind of
10 the most broad general question out there to get the discussion
11 started.

12 MR. TAAFFE: Okay.

13 MR. FRIGO: But, you know, how were you -- how did you first
14 get involved in the project and what were some of your initial
15 activities, and if you could then, you know, discuss the SSMP and
16 I'm sure that's kind of part of your answer and we'll go from
17 there?

18 MR. TAAFFE: Okay. This is Robert Taaffe. On the Point
19 Defiance Bypass project, the original assigned senior safety
20 assurance specialist resigned from the agency in August of 2017.
21 So although I was engaged with the project in reviewing documents
22 and going through the process and following the evolution of the
23 PHA and the construction conformance verifications, the
24 construction management team and resident engineer providing us
25 that information, the systems integration testing, the signal

1 testing, the warning times, grade crossings -- we had meetings; we
2 had updates. It wasn't until August that I actually fully
3 engaged, with the departure of that particular individual on this
4 project.

5 So had some catching up to do, but quickly caught up because
6 our tasks were very well-defined in our contract with WSDOT. And
7 that was build the track, build the right-of-way, grade crossings,
8 signals, and verify -- complete the testing on that and then
9 transition it to operations for WSDOT and Amtrak to go into pre-
10 revenue testing and then eventually into service.

11 MR. FRIGO: Okay. Now, let's just -- I have not seen a PHA
12 completed by WSDOT, but I've seen a PHA completed by Sound
13 Transit.

14 MR. TAAFFE: Right.

15 MR. FRIGO: So -- and that PHA discusses certain operational
16 hazards.

17 MR. TAAFFE: Correct. Ryan, if you will, specifically --
18 this is Robert Taafe. Specifically the grade crossings. There
19 was a -- in fact, this project started off with grade crossing
20 diagnostics and analysis, knowing that trains proposed to travel
21 at 79 miles an hour with the number of grade crossings, that was a
22 very apparent obvious hazard.

23 MR. FRIGO: So, and let's -- you know, you and I are both
24 safety professionals, and most of the people that are going to
25 read this transcript are safety professionals and they understand

1 that. But for those that might not understand, you know, why
2 that's such a hazard, is there something in the SSMP that would
3 tell you how to look at the hazard of a grade crossing?

4 MR. TAAFFE: No.

5 MR. FRIGO: No.

6 MR. TAAFFE: No. This is Robert. No.

7 MR. FRIGO: But what about defining that hazard? Has it --
8 you know, I'm sure you use a hazard matrix for defining hazards.

9 MR. TAAFFE: Right.

10 MR. FRIGO: Let's talk about that process, and if you want to
11 use the grade crossing as an example, and even if we want to talk
12 about from the PHA standpoint how is that developed and how does
13 it look at -- you know, whether it's a grade crossing or if we
14 want to, you know, talk about the curve, whatever we want to use
15 as that example. I just would like to learn more about the
16 approach with this project to defining hazards as it relates to
17 what is outlined in the SSMP. And then, you know, how does Sound
18 Transit define -- how was the risk defined?

19 You know, I've read through the SSMP and I think it does a
20 pretty good job at discussing probability and severity and how you
21 get to those -- how you get to a rating. But I'm -- you know,
22 again, from your perspective, and I understand you played catch up
23 with this, but for the benefit of the investigation just kind of
24 walking through that process would be very helpful.

25 MR. TAAFFE: For any of the hazards identified -- as Michael

1 asked earlier, there was a global understanding, a 60 percent
2 design that was provided by WSDOT for the project itself. And
3 once that's taken into account, again, the grade crossing
4 diagnostics and analysis were done and then workshops. Several
5 workshops were set up for representatives from each of the
6 stakeholders in this project: Sound Transit, Washington State
7 Department of Transportation, Amtrak, the designers and the UTC.
8 We have meeting minutes from those workshops. And, basically, the
9 hazard is projected up on the wall and there's a general
10 discussion just like in a setting like this of how we mitigate
11 this hazard. If there is an off-ramp that's immediately adjacent
12 to one of the grade crossings, you know, the Point Defiance
13 Bypass, how do we mitigate that? How do we minimize that hazard
14 to where it's to an acceptable level? Is that through design?
15 Primarily, yes. The focus is always design that hazard out.

16 What was unique about this particular project is that it was
17 a WSDOT design. And so we were kind of, not necessarily putting
18 the cart in front of the horse, but the design was what it was.

19 So any hazard, again, you start with your initial ranking of
20 frequency, severity. And, again, is it through operating data?
21 Is it just let's have a discussion of how many trains are going
22 through there and how much traffic is observed to define that
23 initial hazard ranking? And then if you implement these hazards
24 -- pardon me -- these mitigations, where is our residual hazard
25 ranking if these are implemented.

1 MR. FRIGO: And before you get to that point, how is the
2 hazard initially identified? Who does that? How does that
3 happen?

4 MR. TAAFFE: Well, sometimes we have baseline documents from
5 other operating systems. If we have -- for instance, I don't know
6 specifically but the initial preliminary hazard analysis for the
7 Point Defiance Bypass may have been generated from the preliminary
8 hazard analysis done for the D to Lakewood project. And that's a
9 framework.

10 And then you bring in input from, again, operations or the
11 designer or a technical expert, subject matter experts to help you
12 identify those particular hazards. And then it's essentially if
13 you don't have that trend analysis data or specific hard evidence,
14 it's almost just where do we want to start with this? How likely
15 is this to happen?

16 MR. FRIGO: And so, and what -- there are many methods out
17 there to get to that point to develop probability and to develop
18 the category of catastrophic -- you know, to develop the risk
19 factor. What is it that Sound Transit used to define the hazards
20 into those levels? Was it the MIL Standard? Was it an ICAO
21 document? What was used?

22 MR. TAAFFE: This is Robert Taaffe. For this particular PHA
23 generated for the Point Defiance Bypass it was the MIL Standard
24 882E.

25 MR. FRIGO: Okay. And for all the different -- let's start

1 out with this because you're the safety guy. So what is the MIL
2 Standard 882?

3 MR. TAAFFE: So the MIL Standard 882 is generated -- it began
4 systems assurance or system management -- or safety management
5 systems. The military established this with respect to how they
6 were managing or mitigating hazards associated primarily with
7 aviation. That they would build a plane, they would fly it, it
8 would crash, they'd figure out why it would, and then they would
9 go back and fix, fly, fix.

10 MR. FRIGO: Uh-huh.

11 MR. TAAFFE: And that evolved into an actual matrix, hazard
12 ranking matrix on what is the probability that this particular
13 item, occurrence, event will happen. And if it does happen, what
14 is the severity of that happening?

15 MR. FRIGO: And so how does Sound Transit look at -- and I've
16 seen it before in the SSMP, but as far as developing the
17 probability, what are some of the factors that will come into
18 establishing what the probability of a certain occurrence of a
19 hazard would be?

20 MR. TAAFFE: If we -- we would look at if we have historical
21 operating data, or information associated with establishment of
22 some kind of evidence, if you will, of a probability.

23 MR. FRIGO: Okay. And when you say historical data, is it
24 only internal data or does Sound Transit look at other events on
25 other railroads?

1 MR. TAAFFE: Primarily internal data.

2 MR. FRIGO: Okay. And then as far as the risk
3 classification, how is that derived?

4 MR. TAAFFE: The severity of the particular event is
5 basically through consensus, discussion, subject matter experts
6 that are part of that work group.

7 MR. FRIGO: Is there a -- I know you mentioned that the work
8 group is, it's almost a collaborative -- I interpreted your
9 description as it's a collaborative process made up of the
10 interested parties in the project. Is there a training on --
11 delivered to that group prior to having these discussions about
12 what, you know, what Sound Transit -- what the approach is to
13 hazard management, what it means? Because not everybody -- I
14 mean, is everybody in there have 17 years of safety experience or,
15 you know?

16 MR. TAAFFE: To that point, there's always an introduction.
17 There's always a why we are here, how we're going to do this
18 input. And again, collaboration and group effort is strongly
19 emphasized in these workshops.

20 MR. AL-TAMIMI: This is Salah. I'd like to add one thing.
21 So I don't know if people on this specific project were involved
22 in this or not. Robert, his team, myself, a consultant led agency
23 wide training for safety certification. And I don't remember the
24 numbers, Robert, but we brought the consultant over I think it was
25 a week or 2 weeks --

1 MR. TAAFFE: Yes.

2 MS. IMPASTATO: -- and it was an 8-hour class, I think, or
3 something like that. It was a day long. Okay.

4 MR. FRIGO: Okay.

5 MR. AL-TAMIMI: There's another thing that I think is a key
6 factor there. Robert, myself, and then -- let's see, I can't
7 remember from staff probably was the manager or supervisor that's
8 no longer with us, and then there was also Steve Metchak (ph.),
9 supervisor.

10 MR. TAAFFE: Yes.

11 MR. AL-TAMIMI: We spent I don't even know how many months
12 meeting in my office talking about risk; talking about hazards;
13 talking about how do you we improve the Military 882. And we
14 said, okay, from an agency perspective, from Sound Transit, what
15 are these things? Because it's really important for me that all
16 of us speak the same language. It's important for me that I got
17 my designer/construction versus my operational, they're seeing eye
18 to eye and they're communicating.

19 So we spend a lot of time talking about that. So I can't
20 speak on this specific project team and, again, like Robert said
21 it's a little bit unique this project, but in general, we -- if
22 the people in that preliminary hazard analysis did not get the
23 training, you know, the introduction you guys identify that. We
24 run into a lot of times fire department or third party that they
25 not familiar with our process but they're a key player with us

1 usually, but Robert brings them in and we give them whatever
2 training needed.

3 I know Christina, from her staff, they went up to Lynwood
4 Fire Department and you guys held special training for safety
5 certification and explained the PHA for them.

6 So there's a lot of stuff that we do big picture. Specifics,
7 you know, he need to tell you about it.

8 MR. TAAFFE: This is Robert Taaffe again. Also, Ryan, when
9 we establish the work groups we're looking for our partners or
10 stakeholders, their safety professionals to join, who would have
11 at least with the intent of an understanding of doing a hazard
12 analysis and the risk matrix.

13 MR. FRIGO: Okay. And when -- so, you said -- so 60 percent
14 design was the -- was that the first PHA activity by Sound
15 Transit?

16 MR. TAAFFE: It was actually done before.

17 MR. FRIGO: Okay.

18 MR. TAAFFE: We did -- in October of 2014, we did the initial
19 PHA workshop. Then we actually had a field visit shortly there
20 afterward where we actually went out and looked at the area along
21 Point Defiance Bypass. Then we had a grade crossing PHA workshop
22 that rolled up into the general overall PHA workshop, and that was
23 all done by the end of 2014. And then the final PHA from both the
24 design, the grade crossings, that was completed in --

25 UNIDENTIFIED SPEAKER: April.

1 MR. TAAFFE: -- April, April of 2015.

2 MR. FRIGO: Okay. And let's talk about the identification of
3 overspeed derailments and I -- believe me, I'm glad that you
4 clarified when you came on to the project with this role.

5 MR. TAAFFE: Right.

6 MR. FRIGO: But I'm really looking to -- and hopefully
7 there's some insight into how did that get onto the PHA, the
8 overspeed derailments.

9 MR. TAAFFE: The overspeed? At milepost 3 we have an 8.2
10 percent grade -- or 2.8 -- 8.2 --

11 MR. FRIGO: Whew.

12 MR. TAAFFE: -- 2.8 percent grade at milepost 3. That was
13 the first concern of coming down that hill. And then secondly, we
14 also were concerned about derailments with respect to the grade
15 crossing, contacting a vehicle or large truck. We also have a
16 unique operating environment in that we're immediately adjacent to
17 one of the largest military bases in the world and they're running
18 equipment in, they're running convoys in, so we also have a
19 concern about a military vehicle, not just a private passenger car
20 being in that grade crossing. So that's how the overspeed
21 derailments played out through the PHA.

22 MR. FRIGO: Okay. And the -- and I know there's no
23 specificity. You mentioned milepost 3.1. And there's another
24 significant curve at 19.8 with a downgrade in the southbound
25 direction and that's where the accident --

1 MR. TAAFFE: Accident occurred.

2 MR. FRIGO: -- occurred.

3 MR. TAAFFE: But I know there's no specificity on the PHA for
4 the locations.

5 MR. FRIGO: Correct. Because we have another one run --
6 sorry, I'm sorry to interrupt you. But we also have another curve
7 that's just north of the Lakewood Station.

8 MR. FRIGO: Okay. So and, again, on the PHA when I -- you
9 know, looking at the PHA, to me for mitigating the overt -- so the
10 initial rating of an overspeed derailment in a curve is
11 unacceptable.

12 MR. TAAFFE: Correct.

13 MR. FRIGO: And I think you guys have it a 1 -- it was at a
14 1(c).

15 MR. TAAFFE: Like 1(c), yes.

16 MR. FRIGO: Yeah, it was at a 1(c). And the mitigation, you
17 know, we talk about track standards, meeting track standards and
18 then it's future PTC.

19 MR. TAAFFE: Correct.

20 MR. FRIGO: So it -- and I'm glad we are having this
21 decision, because it's -- am I to think that when that was
22 developed, that the -- to get to a 1(c) level, which is still
23 undesirable, and we could talk about what it means when there is
24 an undesirable hazard and how that risk is accepted, but it seems
25 to me that an engineering control such as the PTC was the proposed

1 mitigation to get to the undesirable level. So is that, am I
2 interpreting that correctly from the PHA?

3 MR. TAAFFE: This is Robert Taaffe. Yes and no. That was
4 one element --

5 MR. FRIGO: Okay.

6 MR. TAAFFE: -- of mitigating that particular risk. And with
7 that particular line item, when this project initially started and
8 with had our first PHA workshop in 2014, FRA required PTC to be in
9 play, operational, at the end of 2015. So the expectations were
10 from all of our parties that PTC was going to be operating on the
11 Point Defiance Bypass, and as we all know that was then pushed out
12 until the end of this year.

13 That being said, that line item on the preliminary hazard
14 analysis, if you will, with -- referring to the future PTC that
15 would be a place holder. If we had PTC operating on the
16 alignment, we would have added a new line for PTC being in
17 operations and lowered our frequency for high speed derailments.
18 But we would have kept that original line item because with
19 respect to PTC it's -- if you will, it's complexity, the issues
20 you may have with inoperability, initializations, failures during
21 runs, we would still have to rely on the operating engineer. We'd
22 have to operate on signs, standard operating procedures, our grade
23 crossings, to mitigate that hazard.

24 MR. FRIGO: So would the -- and what did it end up as on the
25 -- in the safety certification verification report? It was still

1 a 1(c), right?

2 MR. TAAFFE: I think it was a 1(c).

3 MR. FRIGO: And that's where I think the -- and we could pull
4 it up. Maybe we actually should pull it up. I don't know if you
5 guys have it. I can pull it up here on my --

6 MR. TAAFFE: I can find it.

7 MR. FRIGO: Yeah. We should really pull that up, but --
8 because I think we end up with the timetable and SOP as the
9 mitigations.

10 MR. TAAFFE: Standard operating procedures, that is engineer
11 qualifications, the timetable, I believe signage and -- but I'll
12 find it for you.

13 MR. FRIGO: Let's pull up. Let's pull it up. Because it's
14 important enough that we should -- and I know there's also a
15 reference to WSDOT in a note on that line also that I'd like to
16 better understand.

17 MR. TAAFFE: I have lots of paper here. Okay. Oh, here it
18 is, Ryan. So here's the -- and I'm sorry about the font.

19 MR. FRIGO: No, that's fine. I just want to make sure we get
20 it right here. So we've -- you know, PTC regulated speeds
21 according to timetables, SOP; PTC will be activated second quarter
22 of 2018. Now the -- okay. So I haven't seen this version yet.

23 MR. TAAFFE: I think that's their verification matrix.

24 MR. FRIGO: That's fine. So there's a 10/27/17 date on that
25 and the -- I assume this column is the PTC not installed as of

1 November 20, '17. The work-around, adhere to Sounder Commuter
2 Rail Timetable No. 2, November 13, 2017. All right. So let's
3 just -- let's talk a little bit about this.

4 MR. TAAFFE: Okay.

5 MR. FRIGO: So with it being a 1(c) and, again, just to --
6 let me ask a clarifying question here. Was --

7 MR. TAAFFE: This is our initial. Robert Taaffe. This is
8 our initial and this is our residual.

9 MR. FRIGO: So it's still undesirable --

10 MR. TAAFFE: It's 1(d), yes.

11 MR. FRIGO: -- at 1(d). So with an undesirable hazard, how
12 do you -- was there a restriction or any -- was there anything in
13 place related to this hazard when it was turned over for
14 operations?

15 MR. TAAFFE: Not to my knowledge, because it had gone through
16 our Safety, Security, Design, Construction Committee and the PHA
17 was accepted.

18 MR. FRIGO: Okay. So, help me understand that, how an
19 undesirable hazard then is accepted. Let me -- how can I
20 understand that through the committees at -- so it would enter in
21 at the Fire Life Safety and Security Committee level? I mean
22 because it --

23 MR. TAAFFE: To would actually enter in at the project level.

24 MR. FRIGO: At the -- okay. So -- but at what level on the
25 hierarchy would an undesirable hazard such as this one gets

1 accepted?

2 MR. TAAFFE: At the Safety, Security, Design, Construction --
3 or certification committee.

4 MR. FRIGO: Okay.

5 MR. TAAFFE: And then if they rejected any elements of the
6 PHA, then it would elevate.

7 MR. FRIGO: So they have the ability to accept the risk of an
8 undesirable hazard?

9 MR. TAAFFE: And they have the ability to kick it up.

10 MR. FRIGO: If they need to.

11 MR. TAAFFE: If they're not comfortable.

12 MR. FRIGO: And is that your -- is it at your level, Robert?

13 MR. TAAFFE: Yes.

14 MR. FRIGO: Okay.

15 MR. TAAFFE: At that point in time, Ryan, yes, that was at my
16 level.

17 MR. FRIGO: At that point in time.

18 MR. TAAFFE: Yep.

19 MR. FRIGO: So it's at the director level or lower?

20 MR. TAAFFE: It's at the safety -- system safety assurance
21 manager level.

22 MR. FRIGO: Okay, at a manager level. And that position
23 reports to you now?

24 MR. TAAFFE: Correct.

25 MR. FRIGO: Okay. All right. So -- and, again, I just want

1 to talk a little bit more about the, you know --

2 MR. TAAFFE: So they would accept the PHA.

3 MR. FRIGO: Okay.

4 MR. TAAFFE: And then the SOAP, which is the senior oversight
5 panel, they would be notified; they would be told that the PHA has
6 been accepted.

7 MR. FRIGO: Okay. And the -- is there anything that goes
8 along with that? Is there any analysis that says that there's a
9 justification to accept it at that level or is this the only
10 document that -- is this the justifying document?

11 MR. TAAFFE: Well, this and the verification documents that
12 are verified here through construction, testing, to confirm the
13 mitigations.

14 MR. FRIGO: Okay. So, what direct operational -- operational
15 testing verifications were performed to validate these proposed
16 mitigations?

17 MR. TAAFFE: And that's where we have the uniqueness of this
18 project is that we can only rely on the design, the super-
19 elevation of curves, the grade crossings and warning times, making
20 sure they're adequate for the speeds of the trains. But when it
21 came down to operating the train at the operational speeds,
22 unfortunately we were not involved in that. My group is not
23 involved at that.

24 MR. FRIGO: Okay.

25 MR. TAAFFE: So what I was looking for is Amtrak, WSDOT,

1 again, compliance with 240 -- I mean, the signage is there, the
2 grade crossing warning times have been accepted, the signals are
3 functioning, the timetable was drafted and accepted from parties,
4 and that last piece about standard operating procedures of
5 operating the rail adhering to speeds, et cetera, that comes out
6 of the 240 locomotive qualification, which we do not have that
7 piece.

8 MR. FRIGO: And this is helpful. This is helpful for -- you
9 know, to help me and the other group members to understand the
10 Sound Transit perspective on this, because, again, as I stated
11 before, WSDOT doesn't have a PHA. Or they haven't provided it to
12 me. But they don't have a PHA. Amtrak doesn't have a PHA. So
13 the only one that exists is the Sound Transit document.

14 MR. TAAFFE: We did for the -- with respect to the building
15 of the operating environment.

16 MR. FRIGO: Right. And I know you mentioned before earlier
17 today that there was an understanding or an acceptance that an
18 environment would be turned over to WSDOT and Amtrak, and you're
19 going to provide --

20 MR. TAAFFE: That's correct.

21 MR. FRIGO: -- some documentation on that.

22 MR. TAAFFE: And, again, this is Robert Taaffe. That was
23 specifically stated on our contract with WSDOT.

24 MR. FRIGO: Okay. Now let me ask this question. So we
25 talked about three curve locations: We talked about 19.8; we

1 talked about 13.1 --

2 MR. TAAFFE: I think it's 13.1.

3 MR. FRIGO: And there's another one you mentioned?

4 MR. TAAFFE: 3.1 is downhill.

5 MR. FRIGO: And then there's something else north of
6 Lakewood.

7 MR. AL-TAMIMI: North of Lakewood, yeah.

8 MR. TAAFFE: Well, North Lakewood.

9 MR. FRIGO: And Sounder operates from Lakewood north.

10 MR. TAAFFE: That's correct.

11 MR. FRIGO: Okay. So is PTC operational on Sounder's
12 equipment north of Lakewood; do you know?

13 MR. TAAFFE: Do you mean right now or --

14 MR. FRIGO: Yeah. Just right now or --

15 MR. TAAFFE: PTC is operational on Lakewood at the moment, up
16 to Lakewood at the moment.

17 MR. FRIGO: And what about on the day of the accident?

18 MR. TAAFFE: I do not know.

19 MR. FRIGO: Okay. So that'd just be something that maybe we
20 could take a note to try and -- I could talk to our signal guy
21 also, but just to -- you know, because I'm looking at it from the
22 perspective of, you know, it seems to me that the hard defense was
23 the engineering control of PTC and that when we look at this
24 hazard the softest defense possible would be reliance upon the
25 engineer and the operating rules. And I mean, that's -- it's

1 pretty clear there's hierarchy in the SSMP where it talks about,
2 you know, how --

3 MR. TAAFFE: Design it --

4 MR. FRIGO: -- Sound Transit wants to eliminate hazards, and
5 I think it's the third or the fourth where it talks about SOPs --

6 MR. TAAFFE: Versus training, yeah.

7 MR. FRIGO: Right. Exactly. Because it's widely accepted
8 that there are challenges with that.

9 MR. TAAFFE: Yes.

10 MR. FRIGO: So the -- so, again, just going back to -- and,
11 again, with the operational hazard analysis, I think you -- we
12 covered this earlier today, but there wasn't a direct involvement
13 by Sound Transit or there wasn't a direct OHA plan?

14 MR. TAAFFE: Correct.

15 MR. FRIGO: Okay. And that was because it was not a
16 deliverable --

17 MR. TAAFFE: Right.

18 MR. FRIGO: -- in the contract?

19 MR. TAAFFE: Right.

20 MR. FRIGO: Okay.

21 MR. TAAFFE: So this would -- this verification matrix is
22 essentially a de facto operating hazard analysis because these are
23 the items that were gleaned from the preliminary hazard analysis
24 as certifiable items.

25 MR. FRIGO: Right. Right. I understand that and that's why

1 I'm -- that's how I'm looking at it, and absent any other
2 documentation from any -- you know, from WSDOT or from Amtrak. So
3 it, again, it's -- you know, I think the part of the story here
4 that's still not clear is what was the expectation for verifying
5 that that was the right mitigation. And it's in -- and, you know,
6 again, I think that that's something that we don't have an answer
7 to.

8 MR. TAAFFE: Right.

9 MR. FRIGO: And, you know, and it's -- you know, you look at
10 these things after the fact and you -- you know, something like
11 this to me, it jumps out at me. And, again, with the timetable,
12 you know, the last time we spoke we talked about the timetable --

13 MR. TAAFFE: Right.

14 MR. FRIGO: -- and we talked about how the location at 3.1
15 meets the requirements of the FAST Act, which is the speed limit
16 reduction and it's the speed reduction of greater than 20. And so
17 that's actually in the timetable as a location where a crew member
18 would have to, you know, be in contact with the engineer prior
19 station, not less than one mile prior to that location. We talked
20 about how it wasn't in place for 19.8. And there could be a
21 multitude of reasons why that wasn't, and we talked about those
22 reasons in the previous discussion.

23 But it's -- you know, again I'm trying to again get at that,
24 if this is the only PHA that exists, if the only hazard analysis
25 that was performed was done by Sound Transit, to me it's a missing

1 component that -- you know, and whether or not, you know, there's
2 stuff that I haven't learned yet or that hasn't been shared with
3 me, but it's, you know, it's -- I just wonder when in the
4 verification reports where people are signing off on elements
5 within a certain section, I mean, did anybody question any of
6 these elements? I didn't see anything in the verification
7 report --

8 MR. TAAFFE: That shows exceptions?

9 MR. FRIGO: Yeah.

10 MR. TAAFFE: The other, I guess the other piece to, if you
11 will, this complex project was the PTC project was a separate,
12 completely separate project and program and so it wasn't
13 interdependent between the Point Defiance Bypass and the PTC
14 project that was occurring for this territory. The PHA was
15 generated and it was, if you will, managed by Sound Transit to
16 close out these items to do the verification on the various
17 mitigation, but it was assembled and communicated, again, with our
18 partners.

19 MR. FRIGO: Yeah. No, and I understand that. I want to talk
20 a little bit more about those partners --

21 MR. TAAFFE: Okay.

22 MR. FRIGO: -- in a few minutes.

23 So we talked a little bit about how internal data is used to
24 -- historical data to, I guess, define probability or determine
25 probability. You know, when I saw the first pictures on the news

1 of this account, you know, I had flashbacks to Philadelphia Amtrak
2 188, the overspeed derailment, and flashbacks to Spuyten Duyvil,
3 which was Metro North in the Bronx, which was an overspeed
4 derailment. And, you know, it's to me the -- I think you guys hit
5 the nail on the head with defining this hazard. I mean, it really
6 was defined accurately as, you know, overspeed derailments in
7 curves because that's what the industry was seeing over the past
8 few years. And, in fact, the whole FAST Act requirement came out
9 of an emergency order from the FRA; that's when it first started.

10 Did any of those -- what was happening in the industry, did
11 that play into the proposed mitigations on this hazard or --

12 MR. TAAFFE: You know, unfortunately because I didn't
13 participate in that particular initial PHA workshops, the three or
14 four that were held, I can't answer that.

15 MR. FRIGO: Okay. All right. And then do you know if -- and
16 I want to get back to the -- I want to get to the other players --

17 MR. TAAFFE: Yes.

18 MR. FRIGO: -- the interactions, but I do have to ask, I have
19 to ask this question. At any point did anybody ever consider
20 waiting, just trying to delay revenue operations until PTC was
21 completed, or are you aware of --

22 MR. TAAFFE: I can't answer -- this is Robert Taaffe again.
23 I can't answer that because I'm not -- I don't know what the
24 operating service agreement states.

25 MR. FRIGO: Um-hum.

1 MR. TAAFFE: I know what the contract is, what our tasks and
2 roles and responsibility with WSDOT were for the Point Defiance
3 Bypass, but the Amtrak agreements, I don't know if they had hard
4 dates in them. We were just -- this project, Point Defiance
5 Bypass, we essentially had, if you will, this completed back in --
6 I believe we did the transitional operations and closed everything
7 like early summer, May 2017, for the Point Defiance Bypass.

8 Then we had a subsequent project that was occurring to the
9 north at the Tacoma Dome Station called Tacoma Trestle. But that
10 did not have an impact on the operating environment or the
11 certification for Point Defiance Bypass.

12 MR. FRIGO: Okay. So let me -- Salah, let me ask you that
13 same question. I mean, were you aware of anybody from the Sound
14 Transit side that -- you know, any discussions that were held, you
15 know, where maybe it was this hazard, maybe it was another one
16 where, you know --

17 MR. AL-TAMIMI: From memory, none of -- this is Salah. From
18 memory, there is nothing that came up to my level to say, hey, we
19 need to take this up to the next level. The way we are built to
20 process, if our subject matter experts are comfortable with the
21 resolution, we give them that flexibility.

22 MR. FRIGO: Okay.

23 MR. AL-TAMIMI: And my assumption is, on that one it's just
24 they felt comfortable with the mitigation we have.

25 MR. FRIGO: All right. And now let me ask another one here

1 and, you know, I think we can answer this question still staying
2 in a good place. We talked before about there has been instances
3 in the past where I'm on a project, on a rail project where the
4 project has been able to turn it over to operations with
5 restrictions.

6 MR. TAAFFE: Right.

7 MR. FRIGO: Okay. If -- I mean, looking at this now and,
8 again, I mean looking at this is what we do; we're trying to
9 improve safety. And usually this is a wrap-up question, but I'll
10 -- I mean, is there anything that, you know, could have been done
11 differently or maybe in the future would be done differently based
12 on the events of this accident as it relates to this process?

13 MR. TAAFFE: Within our process I just -- I don't want to
14 speculate or I can't answer. I would say that at the time of the
15 December 18th accident you cannot block because PTC wasn't
16 required. It wasn't mandated for Amtrak to operate on that right-
17 of-way. And, in fact, I don't know if Amtrak was even outfitted
18 and capable -- if PTC was operational on that territory, I don't
19 know if the equipment that was tested for operations along that
20 subdivision were outfitted with PTC hardware and connectivity.

21 MR. FRIGO: Yeah, that's a lot of pieces, a lot of moving
22 pieces to that. I mean, do you want to -- me to throw back to you
23 also --

24 MR. AL-TAMIMI: From my end, with my design background and
25 understanding -- you know, I worked for WSDOT for 16 years. With

1 understanding the big picture, I was in program management,
2 budgeting, you're giving a starts here, ends here. Okay. The
3 powers to be made a decision that this is the alignment that you
4 have. So we -- how can we operate with mitigation to a level that
5 -- you know, if you want to go and fix every single thing in the
6 whole entire country, it's not practical. And main principle of
7 hazard mitigation is practical.

8 MR. FRIGO: Uh-huh.

9 MR. AL-TAMIMI: And I trust the subject matter experts here
10 that made that decision they understand the situation. They
11 understand the restrictions that was put on them, because this is
12 your alignment, this is what you're doing; make it work.

13 So to add on, I want to tag on what Robert talked about the
14 positive train control. I agree with him, and then to go a little
15 bit more on that, the mitigation that are in place, you can take
16 any alignment and you can find it, that it was accepted if you
17 have the, you know, SOPs and you have signs and so on because
18 practically you cannot design everything out. So you go to your
19 other defenses.

20 MR. FRIGO: Right.

21 MR. AL-TAMIMI: And even if you're not look from a designer
22 point of view, sometimes you say I desire, I want to have four
23 things working but I'll accept three or I'll accept two. So this
24 is normal operating procedures with design environment. And I
25 look at it same thing from the safety environment, so what's

1 practical, what can we do and then what's acceptable. And it is
2 -- I'm comparing myself now, you can go find out similar
3 situations where SOPs are in place and signs and so on and it's
4 accepted. So it's just where the hazard mitigation falls.

5 MR. FRIGO: One of the things that, you know, I'm glad you
6 mentioned kind of the common practice and practicality. One of
7 the things Metro North Railroad did immediately after that
8 derailment in Spuyten Duyvil was they put two people in the cab.
9 I mean, that was their answer. And up until PTC that was their
10 answer. And they also implemented civil speed reductions. So
11 there was actually a cab signal overlay that they put in, in some
12 of these locations where they had the significant speed
13 reductions. And, you know, I know Amtrak until they -- after the
14 188 derailment, it was the same thing. They, you know, they
15 implemented some civil speed enforcement with cab signaling. So
16 they were able to, you know, still -- you know, although PTC is
17 that highest level, they were able to implement some other hard
18 protections, you know, versus the soft defense.

19 I have it written down about the partners. So we're going to
20 get to that.

21 So, the -- you know, and I understand once these projects are
22 in motion, you know -- I've done a few startups and it's --
23 there's a lot that's down to the wire, you know. But I'll be
24 honest, this is the first one I've seen where I haven't seen an
25 OHA at the end. So I'm glad you're kind of sharing again that

1 perspective of why Sound Transit didn't complete it and what the
2 expectation was.

3 Now, with the -- lost my train of thought here on this one.
4 Well, let's talk about some of these other players. You know, we
5 mentioned the FRA.

6 MR. TAAFFE: Okay. Right.

7 MR. FRIGO: You know, what -- was the FRA part of this
8 project?

9 MR. TAAFFE: FRA came out and did inspections. They came
10 out, and I know on occasion they even rode in the cab. So they
11 were aware I believe of where we were, the updates on how things
12 were. But again, this is a very interesting relationship and
13 contractual relationship on this project. We were contracted to
14 WSDOT to build Point Defiance Bypass, and WSDOT had that
15 relationship with FRA. So they were involved to some extent, but
16 to the level of conversation, I'm not aware of because for the
17 most part they were probably speaking to a WSDOT representative or
18 our project director.

19 MR. FRIGO: And did FRA provide any assistance on the
20 development of your SSPP?

21 MR. TAAFFE: No.

22 MR. FRIGO: What about the SSMP?

23 MR. TAAFFE: The MP or the PHA, no.

24 MR. FRIGO: Okay. And what about interactions with Amtrak?
25 You know, how would you characterize Sound Transit's, you know,

1 from a safety perspective, interactions with Amtrak?

2 MR. TAAFFE: Well, there was definitely a void. So,
3 originally, we started working with Liz Klute, but Liz Klute is
4 the emergency response manager for the region or the regional
5 emergency management coordinator for the region. We did reach out
6 locally; there was a few individuals at Amtrak. Because the other
7 side of Amtrak and Sound Transit is Amtrak maintains all of our
8 Sounder trains for us, so we have that relationship, that
9 completely separate relationship there. We reached out to Amtrak
10 and we initially started working with Javier Perez and I believe
11 Barbara Fuller, but they were either reassigned or left Amtrak.
12 And the only information that we got after that was there was an
13 individual in Philadelphia -- it wasn't you, Theresa, it was a
14 gentleman, and I can probably find his name for you -- that
15 basically said here's an Amtrak safety. And the real contact we
16 had with Amtrak was Curt Laird.

17 MR. FRIGO: Okay. Out of the division?

18 MR. TAAFFE: Out of the division.

19 MR. FRIGO: And what kind of interactions were with Curt?
20 What were those about?

21 MR. TAAFFE: Those were -- well, especially on the pre-
22 revenue on trains, testing, operations, pre-revenue discussions.
23 Those started back in -- I believe I can get my timetable from my
24 tracking log. I believe they started back in May of 2017.

25 MR. FRIGO: Once Amtrak started doing some testing.

1 MR. TAAFFE: Of, hey, Amtrak, you know, we are getting close
2 to closing things out, let's start talking about how we are going
3 to do pre-revenue testing, how you're going to do dynamic
4 clearance on the stations, because we certainly don't want you to
5 show up and you don't fit the station. So those discussions,
6 again, started in May of 2017, but essentially our interface was
7 with Mike Roswell, Dan Smeltzer -- Dave Smeltzer with WSDOT.

8 MR. FRIGO: Okay.

9 MR. TAAFFE: They were sort of our intermediaries, if you
10 will, because --

11 MR. AL-TAMIMI: We spoke to Mike, yeah.

12 MR. TAAFFE: Our contract was with them, and so we worked
13 with Mike. Mike participated in the PHA. Dave was basically our
14 point for a lot of things. Him, Jason Biggs, Josh Cheatham and --
15 I can find names, but essentially there was a group within the
16 WSDOT rail group that we communicated, worked with. We had a call
17 every Friday. We gave status. We had a tracking log. We had
18 action item logs and tracked where we're at with certain elements
19 with both Point Defiance Bypass and Tacoma Trestle. One of those
20 being -- because I asked the question back with our operational
21 group, was pre-revenue testing. How are we going to do that?
22 Who's going to take the lead? Who's going to coordinate?

23 As I mentioned we finished the construction of the Point
24 Defiance Bypass and were basically in document mode, that
25 administrative catch-up mode for almost 2 months towards the end

1 of 2017; like September, October 2017. And we raised the question
2 with Amtrak, you guys want to start running trains out there, and
3 they had a real issue with crews and equipment availability. In
4 fact, I know when I think they brought out the superline -- I'm
5 sorry I don't know all the terminology of the train sets -- I
6 think they had to cancel a service like to Los Angeles just to get
7 that piece of equipment out on that territory to run it.

8 MR. FRIGO: Were you -- did anybody provide you with any
9 feedback from any of the -- once Amtrak was operating during the
10 testing, was there any feedback provided on any of the elements in
11 the PHA?

12 MR. TAAFFE: There was -- I have emails that were coming from
13 Jeff Greenwell at the conclusion of every testing event. Well,
14 let me take a step back.

15 Amtrak requested three dates for testing in November, but the
16 territory was available almost a month, month and a half before;
17 the testing could have been occurring. Yes, construction was
18 going on at the north end at Tacoma Trestle, but those trains
19 running along that subdivision would have not affected or impacted
20 the construction.

21 MR. FRIGO: Did you know -- did Amtrak ever make any requests
22 to, that you're aware of, to do testing? Because our
23 understanding is they were only given access at night. Were there
24 any requests that you're aware of to perform any of their training
25 and qualifications during the day?

1 MR. TAAFFE: Not that I'm aware of. I don't -- and -- not to
2 my knowledge.

3 MR. FRIGO: Okay.

4 MR. TAAFFE: Not to my knowledge. That would have to be
5 answered through Mark Johnson, who is our project director, who is
6 having those conversations.

7 MR. FRIGO: Okay.

8 MR. TAAFFE: This is Robert Taaffe. John DeFrancesco in
9 Philadelphia, does that name rings a bell? I think. But, again,
10 Theresa, is what we ended up doing is we just started working
11 generally with WSDOT, the local WSDOT rail team.

12 MR. FRIGO: All right. So I'm going to pass it on to Ron.
13 Thank you.

14 MR. PATE: Okay. Ron Pate, WSDOT. I do have a few questions
15 here for you guys.

16 MR. TAAFFE: Sure.

17 MR. PATE: So you said that the WSDOT design was what it was.
18 What do you mean by that?

19 MR. TAAFFE: We only did a constructability review.

20 MR. PATE: So did -- so there were no reviews performed by
21 Sound Transit on those plans?

22 MR. TAAFFE: Sound Transit did a 60 percent constructability
23 review, is all that I'm aware of, Ron.

24 MR. PATE: Did they -- have you seen the sets of plans?

25 MR. TAAFFE: I have.

1 MR. PATE: And okay, so you're saying -- so define
2 constructability review to me.

3 MR. TAAFFE: That was where our subject matter experts went
4 in and looked at the design, overlaid the design with the actual
5 environment on constructability.

6 MR. PATE: So did Sound Transit look at those plans, being
7 the owner of the track, for any operational aspects at all?

8 MR. TAAFFE: Not that I'm aware of.

9 MR. PATE: Was there an approval for those plans by Sound
10 Transit that you're aware of?

11 MR. TAAFFE: I don't believe so. I know that there was a
12 review that cross-referenced AREMA standards, Sound Transit
13 standards, Sounder design standards, and I'm not, again, specific
14 on what those would be and -- that's what I'm aware of.

15 MR. PATE: Let me see here. So does your -- I would call you
16 a host railroad since you own the tracks, right, that's common
17 terminology?

18 MR. TAAFFE: We own and maintain the tracks.

19 MR. PATE: Yeah, own and maintain the tracks. So people
20 operating across the track with Tacoma Rail, what type of
21 relationship do you have with them for the safety plan?

22 MR. TAAFFE: Their SSP?

23 MR. PATE: Yeah. How do you incorporate that?

24 MR. TAAFFE: We just -- well, that's an operational question
25 and our operational group should speak to that.

1 MR. PATE: And I guess specifically for the construction of
2 the bypass, I know they were one of the partners and that's why
3 I'm asking it. I think there's a piece missing there. How did
4 they participate in that for the construction for operation of
5 their trains?

6 MR. TAAFFE: I believe, and I can check to see if they -- if
7 they participated with the PHA, I'm not sure. But they, if you
8 will, they just basically worked around us. They would request
9 track and time from our contractor who had control of the track
10 out there for the construction purposes.

11 MR. PATE: Okay. You also mentioned the contract we have
12 between you and -- us and Sound Transit.

13 MR. TAAFFE: Yeah.

14 MR. PATE: Does it specifically talk about WSDOT operating
15 the trains? Because I got that out of your response, that it
16 mentioned us operating.

17 MR. TAAFFE: On the contract itself it was that WSDOT and
18 Amtrak would establish the testing, the operational -- hang on one
19 second.

20 MR. PATE: The 238 plans, correct?

21 MR. TAAFFE: It doesn't actually reference specifically the
22 238 plan. What it does reference on testing, commissioning,
23 start-up, it says Sound Transit will require the contractor to
24 complete all testing and commissioning on installed equipment per
25 the relevant spec sections for those activities. Prior to the

1 start of revenue service WSDOT will coordinate with Amtrak to make
2 available train sets to test the corridor at design speeds, to
3 test the entire system, ensure the constructed product is meeting
4 the design criteria and the signal system is fully functional and
5 constant time grade crossings are working as designed.

6 So that's what I was referring to.

7 MR. PATE: Okay. And was there any issues with the track and
8 signals functioning as designed when the testing occurred? Would
9 you get that feedback?

10 MR. TAAFFE: On the pre-revenue or during our systems
11 integration testing --

12 MR. PATE: Pre-revenue.

13 MR. TAAFFE: We would hope to get that feedback. We never
14 received any feedback. I was going to mention that we received
15 emails nightly from Jeff Greenwell, the test director from Amtrak,
16 on the pre-revenue runs that were made and the 238 equipment
17 testing. In November, we received daily emails from him that
18 everything went great, no issues or concerns. And that was
19 reflected in the pre-revenue report that we received as well.

20 MR. PATE: Okay. You also -- I want to go to the trestle
21 project because you said that the trestle project did not impact
22 the ability to operate. How do you -- explain that to me more.

23 MR. TAAFFE: Well, you would have to bring a train in very
24 slowly because at this point in time when we were -- in the fall
25 we are working on the south platform, north platform.

1 MR. PATE: I'm familiar with that, yes.

2 MR. TAAFFE: Yeah. And, but you could bring a train through
3 there very -- you couldn't go through, again, at -- you're coming
4 in at a reduced speed anyway into the station. Well, my point
5 being, was that area south down to Nisqually we didn't have any
6 activities going on.

7 MR. PATE: But it was restricted through the trestle?

8 MR. TAAFFE: Yes.

9 MR. PATE: Okay.

10 MR. TAAFFE: Yes.

11 MR. PATE: And I just want to make sure we are clear on that.

12 MR. TAAFFE: Restricted -- I'm sorry, Ron, if you could
13 clarify? Restricted on operating speeds because --

14 MR. PATE: Operating speeds or restricted access at certain
15 times due to your -- the contractor.

16 MR. TAAFFE: Well, we ran Sounder trains daily.

17 MR. PATE: And I understand that. But we had to get
18 approval, WSDOT would get approval from Sound Transit. Are you
19 aware of any one that ever said we could not run at a certain
20 time?

21 MR. TAAFFE: I'm not aware of that.

22 MR. PATE: Okay. Who gave the approval at Sound Transit to
23 start revenue service?

24 MR. TAAFFE: I reported to Salah that we were done with CT
25 certification, that we were transitioning our piece to our

1 operational group.

2 MR. PATE: So how did that translate, and maybe this is
3 better for you, Salah. How does that translate into Sound Transit
4 sending us something or Amtrak, that you can start operating? Who
5 would have sent that information?

6 MR. TAAFFE: Mark Johnson.

7 MR. FRIGO: Okay.

8 MR. AL-TAMIMI: If I could answer.

9 MR. PATE: I'm trying to figure out -- what I'm trying to
10 figure out is how that fits in to here to get to --

11 MR. AL-TAMIMI: So he gives me the letter, and we have a
12 letter ready for Peter. And I give it to Peter Rogoff, our CEO,
13 and that's how we close the loop from the Sound Transit then.

14 MR. TAAFFE: We also, Ron, have a process we refer to as
15 phase gate. And as projects or programs evolve through their
16 various phases, we reach a phase gate 7, which is transition
17 operations. And so we actually sit down -- again, it's another
18 committee; it's a large group, representatives from all the
19 different divisions and groups -- and formally say we are
20 transitioning this to operations.

21 MR. PATE: So in that group was there outside parties from
22 Sound Transit?

23 MR. TAAFFE: There would not be outside parties in a
24 particular phase gate group, but in our weekly conference call, in
25 our weekly call to WSDOT, we would definitely provide notification

1 that we are about to enter phase gate, we've gotten sign-off from
2 phase gate because the -- for transition operations, because that
3 also takes signatures from executive directors and senior level
4 staff.

5 MR. PATE: Okay. One more question.

6 MR. TAAFFE: Go ahead.

7 MR. PATE: I want to go back to the 2015 PTC comment of the
8 line and the matrix, because I'm really trying to understand that.
9 From what you said, here's my interpretation of that: Is that
10 when that was developed there was an assumption that PTC had to be
11 completed by December of 2015.

12 MR. TAAFFE: That would have been completed, yes.

13 MR. PATE: So after that date moved, was that matrix updated
14 or was it not updated?

15 MR. TAAFFE: It was not updated. It was future PTC remained
16 on that matrix.

17 MR. PATE: But it -- the copy I had, when I look back at
18 this, it didn't have an update with -- and I think Ryan read
19 something that said it recognized 2018.

20 MR. TAAFFE: Well, we have -- we were looking at the
21 verification matrix.

22 MR. PATE: Okay.

23 MR. TAAFFE: You may have been looking at the PHA.

24 MR. PATE: Yeah, PHA.

25 MR. TAAFFE: And I apologize for getting those two confused.

1 MR. PATE: So the PHA has not been updated to recognize that
2 now, you know, okay, that it's not going to be in place.

3 MR. TAAFFE: Correct. It was not updated.

4 MR. PATE: Okay. That's all I have.

5 MR. CHAPPELL: Michael Chappell with SMART Transportation.
6 I've only got a couple questions and I think you have already
7 answered one of them, but we'll try anyway.

8 One question I have, you mentioned earlier that Jeff
9 Greenwell said that they only needed 3 days for training.

10 MR. TAAFFE: Please let me clarify that. I'm not sure if
11 Jeff said we need 3 days of training or it was we have scheduled 3
12 days of training.

13 MR. CHAPPELL: Okay. But you had said that there was -- it
14 was available a month before that?

15 MR. TAAFFE: Yes.

16 MR. CHAPPELL: Month, month and a half before that. So they
17 were able to actually come out and do some training a lot earlier?

18 MR. TAAFFE: If -- it was at their option if they wanted to,
19 yes.

20 MR. CHAPPELL: When they were out doing their revenue
21 training, were they limited to track speed?

22 MR. TAAFFE: They were limited to track speed initially.

23 MR. CHAPPELL: Okay.

24 MR. TAAFFE: When they brought the Amtrak equipment out, yes.

25 MR. CHAPPELL: Why were they limited to track speed?

1 MR. TAAFFE: We wanted to check the signals, the warning
2 times on the grade crossings because -- and here's another thing,
3 and also, Ron, for you. When we were doing a lot of the signal
4 testing our Sounder trains only go 60 miles an hour.

5 MR. CHAPPELL: Oh, I'm aware of that.

6 MR. TAAFFE: Yeah, they operate at 60. So we had to bring
7 out the Amtrak equipment to so the signal testing at maximum
8 operating speed, 79 miles an hour. So there were runs made and
9 BNSF provided crews, Tacoma Rail -- and I don't know the specific
10 details on every aspect in every testing event, but when we
11 certified Point Defiance Bypass, it was ready to go but we started
12 at a slower speed to make sure that the signal warning times were
13 good beyond 60 miles an hour.

14 MR. CHAPPELL: Were they -- okay. So they were able to get
15 up to 79 to check the signals?

16 MR. TAAFFE: Yes. Yes.

17 MR. CHAPPELL: Another question, and I think you might have
18 already answered this. You receive safety comments from BNSF that
19 goes to -- through Sound Transit, through the Sounder that goes
20 through your training committee or your Joint --

21 MR. TAAFFE: Joint Rail. You're talking about in general?

22 MR. CHAPPELL: During this time of revenue training that
23 Amtrak was performing, you didn't receive any safety comments or
24 safety concerns at all from them?

25 MR. TAAFFE: No.

1 MR. AL-TAMIMI: I don't think Joint Rail even would be --

2 MR. TAAFFE: No.

3 MR. AL-TAMIMI: -- involved there.

4 MR. CHAPPELL: Was Amtrak involved in the Joint Rail also?

5 MR. AL-TAMIMI: They have a seat. I don't know if they
6 attend or not. Right?

7 MR. TAAFFE: But I wasn't aware of any anomalies, faults,
8 issues or concerns. We did have -- UTC came out. The Utilities
9 and Transportation came out and did an inspection and found some
10 items at the grade crossings with respect to a vehicular
11 delineator placements. We wanted to increase those. And there
12 was a tree that was obscuring -- I believe it was a MUTCD sign,
13 not a right-of-way sign, that WSDOT removed for us. And that was
14 the only feedback, if you will, that I got on issues, concerns. I
15 didn't receive anything back from the testing piece.

16 MR. CHAPPELL: Okay.

17 MR. AL-TAMIMI: And I don't think Joint Rail would be the
18 mechanism. This is Salah. I don't think Joint Rail would be the
19 mechanism for something like that. I mean, because this is under
20 pre-revenue stuff.

21 MR. CHAPPELL: Okay. All right, thank you. I'm good.

22 MS. IMPASTATO: Theresa Impastato. I want to understand
23 better the genesis of some of the Sound Transit procedures. The
24 process that you follow for risk and hazard assessment you said
25 was based on the Military Standard.

1 MR. TAAFFE: Originally.

2 MS. IMPASTATO: Is there a Federal Railroad Administration
3 guide or requirement for hazard analysis?

4 MR. TAAFFE: Not to my knowledge. On the -- now I believe
5 274 -- not to my knowledge.

6 MS. IMPASTATO: As part of this project, at any time did the
7 FRA provide guidance documents that would indicate an expectation
8 for submittal of certain types of analyses?

9 MR. TAAFFE: No. Not that I'm aware of.

10 MS. IMPASTATO: Did the FRA attend any of the hazard analysis
11 sessions?

12 MR. TAAFFE: I'm not sure. I can look at the meeting minutes
13 to determine that.

14 MS. IMPASTATO: You said that some of the FRA inspectors were
15 present for some of the test runs --

16 MR. TAAFFE: Yes.

17 MS. IMPASTATO: -- they rode in the head end. Were those
18 regional inspectors?

19 MR. TAAFFE: I'm not sure, Theresa. I believe -- I think I
20 do have a copy. I think he was out of Vancouver.

21 MS. IMPASTATO: Okay.

22 MR. TAAFFE: But I need to verify that.

23 MS. IMPASTATO: With regard to authorization or approvals,
24 were there any submittal requirements that were annotated in a
25 contract with Sound Transit that documents had to be prepared for

1 transmittal or review by FRA?

2 MR. TAAFFE: The emergency passenger, emergency management
3 plan -- sorry -- the PTEEP was submitted to FRA. But other -- and
4 I believe that a -- I'm going to have to defer to Mark Johnson our
5 project manager. I believe a letter was sent to FRA that we were
6 -- that we had completed Point Defiance Bypass and the track was
7 upgraded to 79 miles an hour. But just to be clear, I don't know
8 if Sound Transit submitted that document or if WSDOT submitted
9 that document.

10 MR. FRIGO: Which document?

11 MR. TAAFFE: To FRA that the track had been upgraded to
12 Class 4.

13 MS. IMPASTATO: And I guess the only other question that I
14 have is at any point were there direct communications from FRA to
15 Sound Transit that indicated any concerns or any issues with the
16 progress of the project?

17 MR. TAAFFE: Not that I'm aware of. Because being the safety
18 person, I'm not concerned with schedules.

19 MS. IMPASTATO: Thank you.

20 MR. TAAFFE: You're welcome.

21 MR. PATE: I'm going to follow up to that.

22 MR. TAAFFE: Yeah.

23 MR. PATE: So you mentioned Mark Johnson and the project --

24 MR. FRIGO: Introduce yourself.

25 MR. PATE: Oh, Ron Pate, Washington State Department of

1 Transportation.

2 So Mark Johnson the project manager, how did he -- how is
3 your relationship with him? Because I think that's a piece that's
4 in my mind not very clear. So he was the person that gave the
5 approval that the tracks to WSDOT and Amtrak, that the trains
6 could operate. Does he make that decision himself, and how does
7 he get input from you with making that decision?

8 MR. TAAFFE: That is a group decision that Mark receives from
9 all parties. So operations, I'm responsible for the safety
10 certification/verification report. So, Ron, all these pieces come
11 together, and Mark chairs that meeting or committee to basically
12 -- you know, operations, are we ready? Contractor, are we done?
13 Construction management, where are we at; are we finished with
14 things? Safety certification, have we completed what needs to be
15 done? And then all that information is handed to Mark.

16 MR. PATE: Okay. And then you also -- just one more -- oh,
17 go ahead.

18 MR. AL-TAMIMI: This is Salah. And also, the piece that we
19 let our CEO know that the project from our end --

20 MR. TAAFFE: Once it's done, once Mark takes all that
21 information, then we notify our CEO that the Point Defiance
22 Bypass, we've completed our piece.

23 MR. PATE: So the safety team says you're ready to go, but
24 then he's got to make sure all the other pieces are also ready?

25 MR. AL-TAMIMI: Yes.

1 MR. PATE: Okay. Understood. The other -- the follow-up, I
2 guess, and I'm trying to think of how to word this. So with the
3 piece of the railroad itself and the infrastructure and this
4 operating, OHA, with Sounder you rely on BNSF to do that piece of
5 work?

6 MR. TAAFFE: On the -- and I'll have to clarify that for the
7 D to Lakewood project, but when the PHA was done for that program,
8 I just need to follow up and provide you that answer.

9 MR. PATE: Okay. That's all I have.

10 MR. CHAPPELL: I don't have anything.

11 MS. IMPASTATO: Nothing else.

12 MR. FRIGO: Okay. Just making a note here. Robert and
13 Salah, thank you for, you know, spending some time here today to
14 talk with us and answer some of these questions. Before we wrap
15 up, I'll just kind of give you both the opportunity -- and let me
16 just go to Jordan first, just to make sure.

17 Jordan, do you have anything that you need to clarify or want
18 to add from just this last discussion?

19 MR. WAGNER: No, not at this time.

20 MR. FRIGO: Okay. And is there anything else you want to
21 share with us or is there anything that we should ask that we
22 haven't asked, you know --

23 MR. AL-TAMIMI: Just from my end, I just want people to
24 remember how complicated this thing is. You've got too many
25 parties and we try to work together. It's -- because some of the

1 questions would have been clear, black and white, if you're
2 talking about the Link or something like that where you just have
3 one partner to deal with. This one is -- really makes it really
4 complicated. And I just want to make sure that you guys
5 understand that and the roles and responsibilities we have in
6 there.

7 MR. TAAFFE: I would just add that we have a strong working
8 relationship with our partners at WSDOT and I would -- moving
9 forward, I would really like to see that similar type of
10 relationship develop with Amtrak. I know that the individuals I
11 mentioned earlier no longer with the organization, but I'm sure
12 that there's new individuals that have filled those roles, and so
13 we definitely need to build that relationship.

14 MR. FRIGO: You have one of the best conduits right here to
15 get that started.

16 MR. TAAFFE: That's why I just said that.

17 MR. FRIGO: But, you know, thank you again. Thank you both
18 for your time and for, you know, sharing with the group your
19 perspective on things, and with that I will -- I'll close it out.

20 (Whereupon, the interview was concluded.)
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CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD


IN THE MATTER OF: AMTRAK DERAILMENT IN DUPONT,
WASHINGTON ON DECEMBER 18, 2017
Interview of Salah Al-Tamimi
and Robert Taaffe

ACCIDENT NO.: RRD18MR001

PLACE: Federal Way, Washington

DATE: March 15, 2018

was held according to the record, and that this is the original,
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Letha J. Wheeler
Transcriber